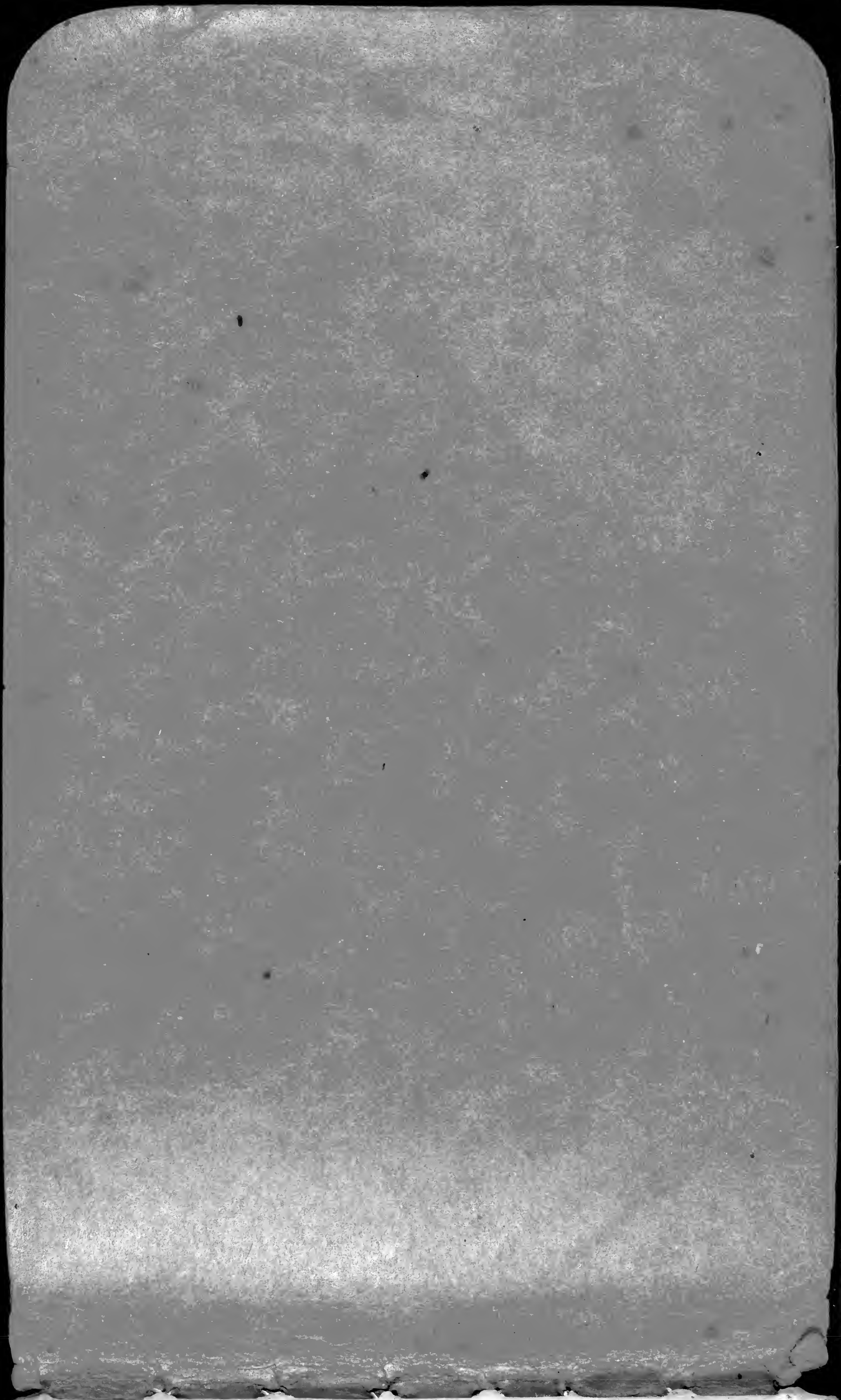


Manual

Botanical Notes

No. 2.

Q. me. to. se.





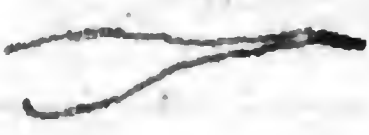
No. 123.

Small tree 8 in. in diam., 18° high.  
Bark rather smooth, brown. Leaves arranged  
like those on young elm branches.




Petal x1 pure white, somewhat  
crenate at outer angles.

Petal 5, hypog. Cor. reg.  
rosaceous.

Sepals greenish, lanceolate, spreading.  
acuminate  rather thickish, densely  
short hairy.

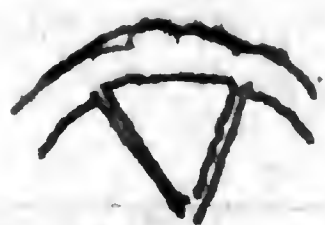
Stamens numerous, hypog, a circle of white  
erect hairs between their  
bases + ovary.



Filaments slender, white smooth, anthers  
transversely 2-celled, short, yellow, versatile.  
Ovary superior, smooth, green, style  
thick + short, stigma 5 lobed, so when  
view from above .



Ovary 5 celled, outer wall  
very thick, partitions thin.



Along lake shore.

Fruit. No. 124



Shrub, weak spreading, 2°-6°, very  
strongly serrate leaves, alternate.

Wh. fls. 5 lobed corolla.




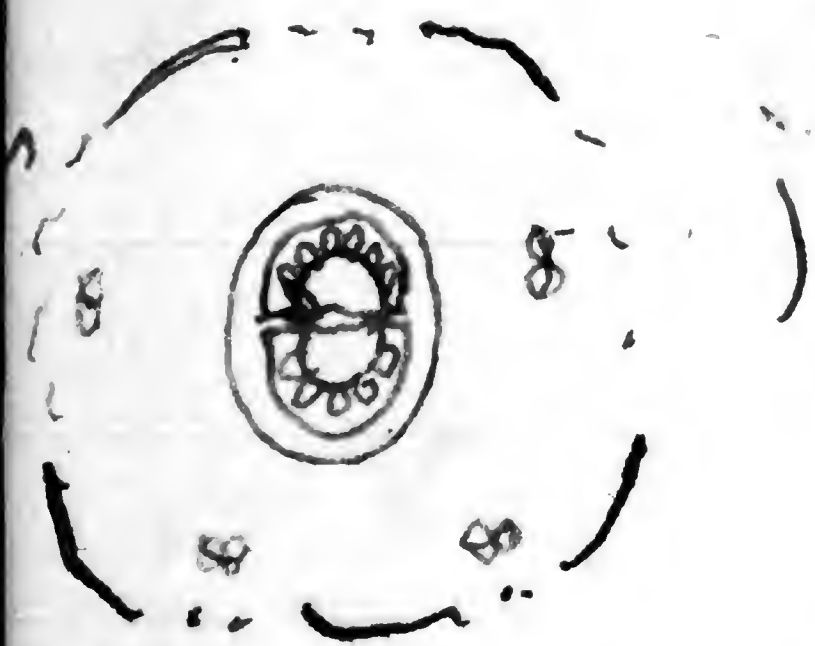
Corolla slightly  
irregular, 2 lobes  
fl. x1. smooth inside, the  
other 3 bearded at base (of lobe  
not tube) lobes acute  
or somewhat emarginate



with a little cup . The lower 3 forming a sort of lip are bearded with fine yellowish hairs inside. Stamens epipet. at base, included, filaments thickish, white, smooth.  Anthers 2 celled, cells spreading, yellow, innate. Stamens 4.


Calyx of 5 lance linear, acute green smooth sepals (or slightly monosp.)

Ovary superior smooth, green, style white smooth, stigma rough, terminal enlarged white.  stigma



Ovary 2-celled, ovules very numerous.

Forms one fl. with 6 lobes to corolla, but only 4 <sup>stamens</sup> leaves now for tea, to sweet. <sup>calls what sounds like I cate.</sup>

Fruit No. 125 near alligator Pt.  1144

The cordate petiolate leaved yellow mallow, with regular <sup>(3)</sup> lobes to corolla. Slender shrub about 2°-3° high.

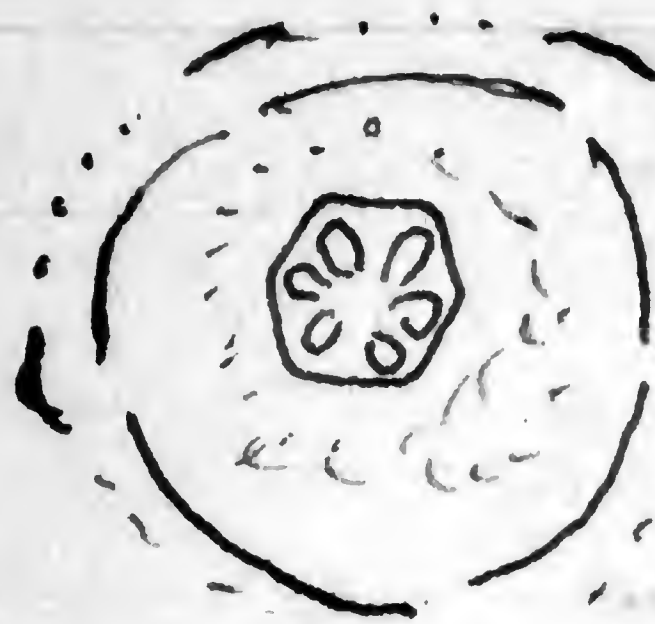
Ovary 6-celled, axile placent, 1-seed in each in pod.

Calyx green, monosp, deeply 5



Calyx green, membranous, deeply 5

lobed, lobes lanceolate, acuminate & all hairy.



Stamens numerous, filaments (free part) slender, column united to corolla in the usual mallow manner.

Anthers yellow, 2-celled & transversely

The lobes do not seem to be symmetrical but like this. There are five yellow.



Style globose (3 or 4?)

lobes slender, spreading & recurved, stigma small terminal.

fruit

### No. 126.

The slender, erect shrub with little raceme of wh. fl. "choke cherry"



fl. x 1.

Ovary superior, somewhat flattened, smooth, 1-celled 1-seed



Calyx of 4 persistent greenish white obtuse oblanceolate, delicately cut at apex, reflex.

Stamens 4 anthers yellow 2-celled filaments converging over ovary style short, stigma white, slightly several lobed terminal

There is a green gland at base of lowest sepal. shrub 2 ft high. near Alligator Pt.



No. 127.

Along roadsides

The very delicate yellowish pea, the leaves with 3 minute leaflets.

fl. x 1.



Calyx irrev. 4 upper lobes rounded, slightly bearded, the lowest narrow, acute, longer. all greenish.

Corolla. Standard large, inclining

remainder. Apex of standard acutish,



purplish.  
yellow

greenish yellow with  
purplish (or pink).

The wings yellow, acutish, <sup>united at</sup> ~~free~~ apex.  
Usual check with the little spur toward base.  
Filaments green, anthers minute  
yellow. Stamens 10.

Keel green, narrow (somewhat membranaceous)  
inclining stamens & pistil. Cohesent.

style smooth slender, stigma  
minute terminal, anthers 2-celled.

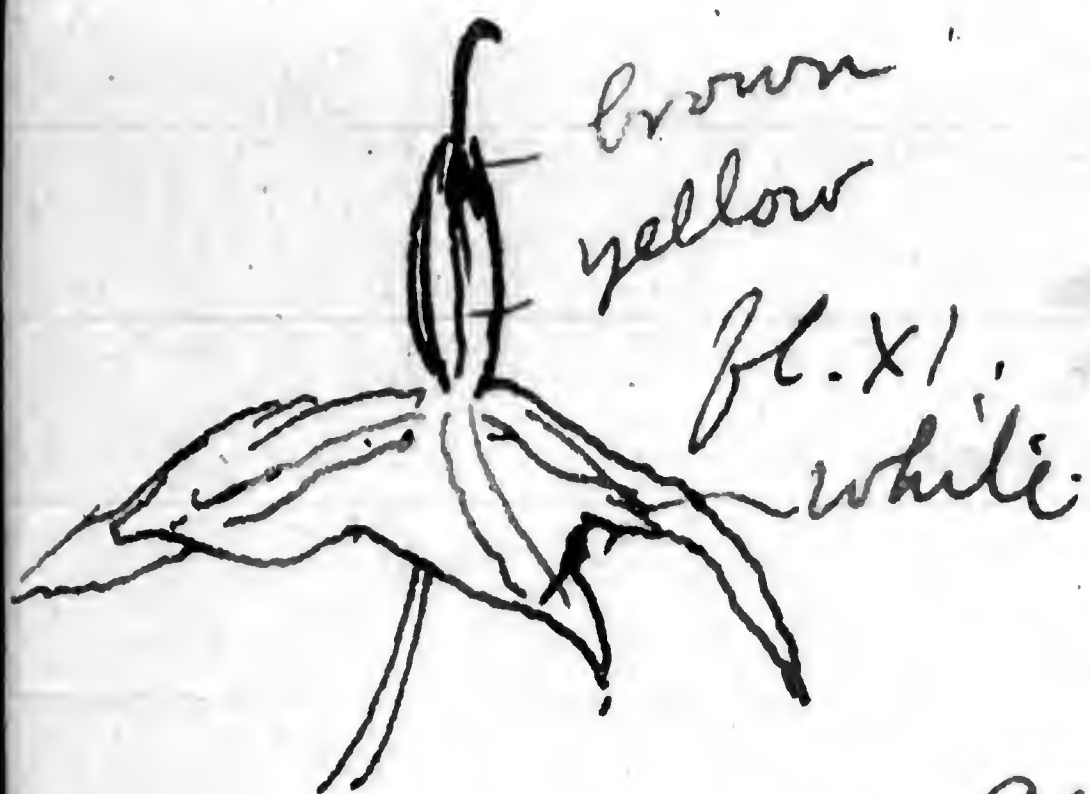
No. 128

Large white shrubby spiny Solanum.

Stems sometimes 3 in. in diam.  
and plant 3'-7' high.



and plant 3'-7' high.



corolla rotate

5 lobed, lobe X1

~~smooth~~  
~~hairy outside along middle~~  
stamens 5, erect

filaments very short.

anther 2-celled innate,  
opening by cracks at top.

Calyx of 5 lobes, green, brown tip.  
hairy.

Ovary smooth, green, superior  
style whitish, stigma green  
terminal, but little enlarged.  
slightly lobed (5)  
Ovary 2 celled, ovules numerous.



## No. 129.

Pink Mallow. Spreading herb. 15'-20'  
calyx numerous, green, 5 lobed, lobes hairy,  
green folds between lobes, persistent, enclosing four  
lobes of corolla pink, ciliate, obtuse(?)  
about equal in size to yellow mallow.  
corolla deep red inside  
column yellow, hairy - stamens numerous,  
anthers yellow, small 2-celled.

petal Not quite sym. (pretty near it)

style deeply 5 divided,  
divisions yellowish, becoming

deep red at stigmas, which are  
capitate + dark red.

ovary 5 lobed



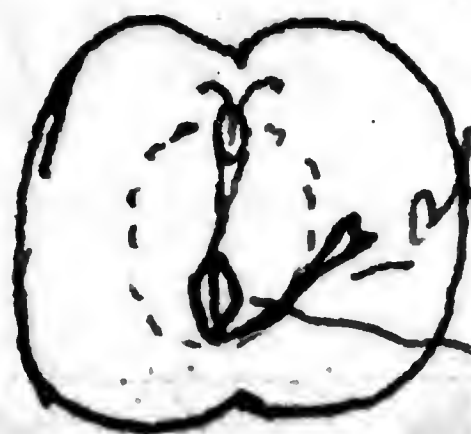
5-celled, smooth  
greenish



Frail.

No. 130

Wood with an elm-samarra looking print.



shape of corolla

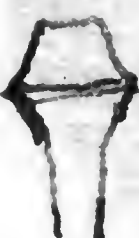
Corolla yellow above  
white below, inner.

abund. styles 2, yellow protruding

above  $\Delta$ . (There is a white body

like this fig. at base of above imprint.)

A smaller scale covers the fl. as indicated by dotted line.

~~(The white style-like body is shaped like a  at  $\frac{1}{2}$ .)~~

This is really part of stam. fl.



Corolla of this is regular 5 lobed,

stamen 5, <sup>(?)</sup> conjugation, included, dark

Is this ~~an~~ Composite? I think so.  
If so there is no pappus, & the  
three scales (there are two small ones  
in front) from the involucre.

4'-10' high. Found in Steins S. field

Ojoché?



~~Frut.~~ No. 131 - <sup>Ojoché?</sup> (Ojoché) (small tree)  
 Used for feeding horses, etc. Fruit boiled used  
 for food (like potato). A shrub  
 7' high, cherry like in general appearance  
 but with gray smooth bark. (Buckthorn?)  
 Fls. in dense axillary clusters. Sweet scented  
 ♀ fl. x1. Calyx monosep. greenish, hairy.

lobes 5, obtuse ovate  
 stamens there are about 10 yellowish, erect  
 very hairy bodies standing up on calyx so. which  
 are probably petals. <sup>stamen</sup>



stamen 10, on calyx, filaments  
 smooth, anthers brownish, 2-celled,  
 versatile(?) but turned inward.

♂ ovary green, hairy 3-angled, superior  
 style short, stigmas 3 (~~act~~

3-lobed) short rough, yellowish, spreading.

Ovary 1-celled, 3 parietal placentae.

Orbules several. } Found near Steiner's gate.

No. 132.

Refluxed fruit.

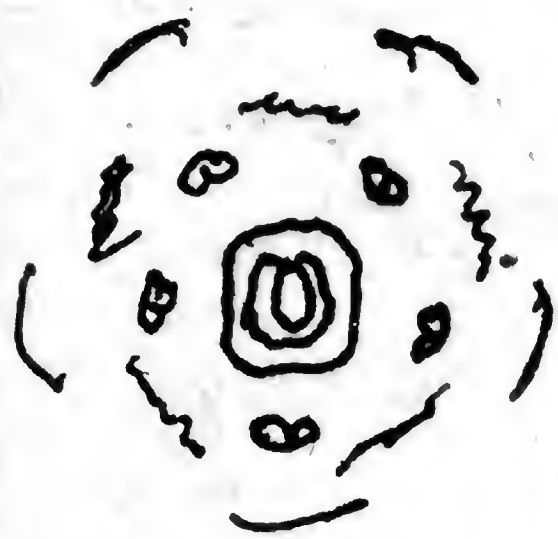
Phryma-like from Steiner's field (south)

♂ Sepal x1 Calyx of 5 stiff green, somewhat  
 scarious, very sharp pointed sepals, spreading,  
 turned down (the whole flower on stem)  
 anther x1 Calyx



\* lobe of corolla

Corolla small, pink (white below)  
<sup>petals</sup> <sup>petals</sup> <sup>erect.</sup>  
~~monopetal~~, 5-lobed, ~~lobes~~ fringed. Stamens  
exserted red, pollen whitish (anthers red)  
introrse, dehisc long.



Stamens attached externally  
to outside of corolla (there are  
ridges running down which give  
it the appearance of hypogynous).

Style erect, short, stigma  
terminal small.

Style pink, ovary green  
flattopped.

Ovary 1-celled, with one seed (a little  
doubtful about this.)

An herb 8'-20' high. Calyx persistent  
inclosing fruit. 2 little bracts above flower.

### No. 133

A prostrate hairy-leaved Morning  
Glory - white flowered - Swamp.

3 outer sepals very large, cordate,  
<sup>airy</sup> hairy, green, acute = more  
than  $\frac{1}{2}$  corolla.

The inner narrow, lance, but otherwise



than  $\frac{1}{2}$  corolla.

The inner narrow, lance, but ~~otherwise~~ <sup>otherwise</sup>

like the larger (but shorter)

Corolla 5-lobed, each lobe ribbed,  
the rib running out into a cusp,  
+ hairy all way (along rib)

Filaments + style white smooth  
equal, included.

Stigma rather small, Ovary 4-celled.  
Vine 1°-3° long.

### No. 134

Little flowers, purple, irreg. Shrub  
with opp. leaves (serrate) + clusters (heads)  
of fls. in axils. Swamp.



corolla



face of corolla

Corolla 4 lobed, lowest  
largest, purplish, remainder of limb  
pink, tube white.

Hairy on outside

Stamens epipetalous, anthers small

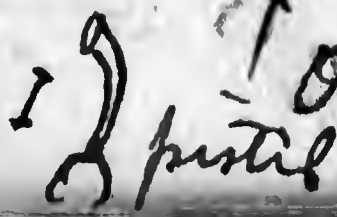
yellow, 2-celled, sessile (or very <sup>nearly</sup> ~~sessile~~)

included.

Stigma oblique, green,

style short smooth, green

Ovary smooth, green, superior






ovary 2-celled, one ovule in each cell.  
Calyx of 2 short, obtuse, whitish,  
rather inflated, small, hairy sepals.  
A weak shrub - 6' high.


wood

fruit No. 135

The yell. fl. cassia-leaved shrub with  
pithy stem in lake. Grows  
6' above water, & the thick part  
over 2' thick.

 Standard yellow, slightly  
x1 emarginate.

Wings obtuse, yellow,

 Keel x1 Keel yellowish (greenish)

obtuse, slightly coherent; with a  
purplish spot toward apex.

Stamens diadelphous, but 5 in each  
set. Greenish, smooth, anther yellowish  
versatile, 2 celled, dehis. long.

 ovary smooth, green, style

short, straight, smooth,  
stigma minute, terminal.



Fruit.

no. 136

Tall, coarse, square stemmed, white-flowered Eupatorium with connate-perfoliate leaves.

Stems 2°-6° high, erect.

Fruit.

No. 137.

Coarse fireweed, 1°-3° high

Waste places.

No. 138.

Eclipta All flowers white

anthers yellow. On muddy (sandy

flat in swamp.

No. 139.

Red & yellow Milkweed (also at San Carlos)

Low places, 1°-2° high herb.

→ yellow The "horns" in petals also  
red: yellow.





no. 140

Tree, leaves very cherry-like fls. wh.  
in axillary bunches. Bark light gray <sup>smooth</sup>  
Tree 5' in diam. 15' high. Swamp.



Corolla greenish  
inflated, white  
calyx x 1



Calyx mon. green, 5 small erect  
acute lobes; rough.

Corolla monopet, 5 lobed, lobes lance,  
acute, spreading; tube inflated below  
lobes white, densely short hairy.



stigma

Stigma terminal very sticky.

Style greenish, smooth, erect.

Ovary reddish (brownish) 2 lobed,

superior. (The ovary is in a little

cup of 5 ovate greenish pieces. This

is ~~probably~~ the <sup>disc</sup> calyx + the above described  
as calyx is probably involucre.)



Ovary 2-celled, many minute ovules  
on fleshy placentae.

The throat of corolla is almost closed  
by fleshy fold!

The stamens 5, sessile, anthers 2-celled

syngeneous, pollen whitish, anthers



stamen introrse, sharp awned.



(shape)



g. stem pubescent, dark brown. (shape)

No. 141

Weed with 3-lobed bur-like fruit  
+ small white fls. <sup>alt.</sup> Lvs. sharply serrate.  
Common on mud <sup>+ sand</sup> in Swamps.

♂ fl. x. Corolla of 5 narrow-obovate, acute  
white smooth petals.

Calyx of 5 rough, green, acute sepals

Sepals unequal, 2 usually smaller

~~1~~ - 1 stigma Ovary superior, hairy ~~to~~  
(ovary. green, 3 celled).

Hairs on pod glandular.

Seed one in each cell. Each cell  
1 ovule. Stigmas 3, sessile, greenish, each  
palmately 5 divided.

— The above applies to pistillate fl.

The stam fl. is ~~stam.~~ 2 petals being  
very small. Petals oblong, oblong, tapering  
to base. Calyx more regular <sup>with 5</sup>  
acute greenish lobes.

♂ corolla. Stamens ten, 5 opp & 5 alt.  
on short erect greenish filaments, anthers  
greenish, rounded, 2-celled, introrse

These occur in same cluster with  
pistillate flowers.

There is a rudimentary pistil, green,  
among the stamens.



Fruit.

No. 142.

Pink, very prickly mallow (called Malva by the natives). Coarse herb 1° - 3° high. In swamp.

Fl. surrounded by 10 linear fleshy green ciliolate & hairy bracteoles which = calyx.

Calyx monop., with 5 ovate acute lobes, very hairy. regular



pink. with whitish lines (veins)

deep red

lobes of corolla almost symmetrical.

Stamens 10, pink, terminal (2)

lobes of style short, pink, 10.

style white smooth.

Ovary 5-lobed, 5-celled.

superior.



Stamen many, column deep

red at base. becoming pink above

free part of filament pink short, smooth

anthers <sup>violet.</sup> ~~purplish~~ (pollen yellow) transversely

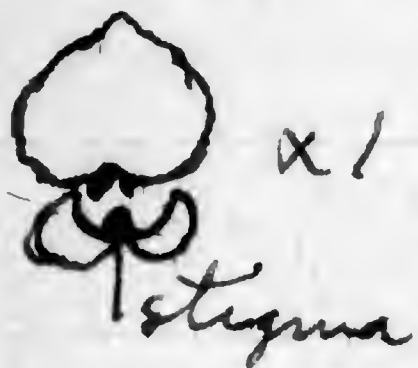
2-celled, dehis. long.; versatile.

Ovary yellow. (whitish.)



No. 143.

"Water Cabbage"



x 1 fl.

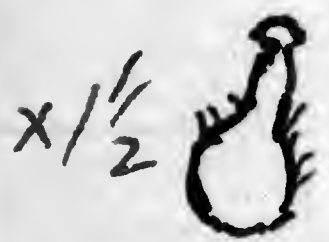
Perianth of 3 very hairy parts, greenish at base, white above.



The uppermost large, cordate above, all very hairy.

Side view. all acute. The lateral much smaller.

Pistil below, stigma just projecting.



x 1/2 Side view of pistil - Style fleshy, erect too wide (thick) greenish, ovary green, 'inflated', this & style both hairy. Superior.

Ovules seemingly attached all along inner wall of ovary which is filled with mucilaginous juice. Walls of ovary thin; ovules minute.



stamens. The stamens are 5 (5 anthers united around a column. yellow, very mucilaginous. the little folds are 2 thin spreading, with crumpled margin.

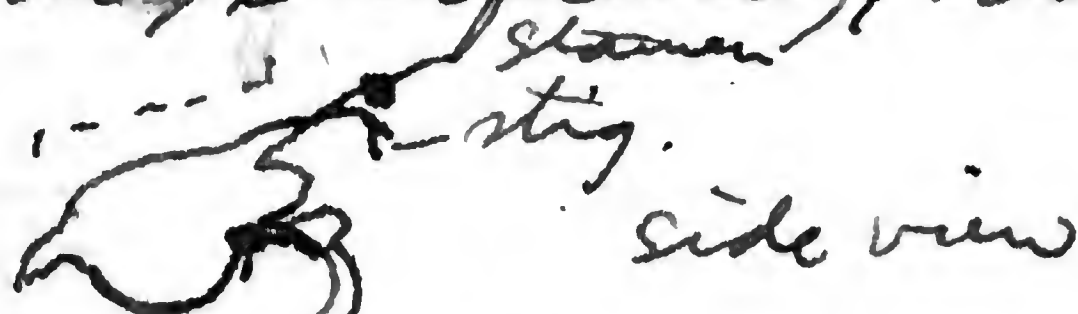
Really there is 1 axile placenta in ovule, this being placed inside (on axile side)



# Fruit No. 144

Coarse hairy mint with long petioles  
opp. leaves. & spikes of almost white fls.  
Coarse herb, 2°-6° high. Toward Swamp.

Calyx inflated, irreg. 5 lobes, upper



longest, all  
hairy; green.  
tube hairy.

x just a little



all white  
except the 3 purple lines.



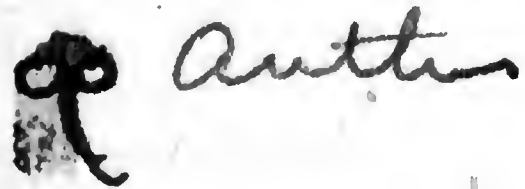
Side view of corolla.

Tube hairy, there are really  
5 lobes to corolla.

1-1 being sharp & recurved, 2-2  
ovate, acute, & 3-broad.

Style smooth, white, stigma

2 lobes; ovary superior, 4 lobed, rough.



Anthers 2-celled, brownish

(orange) pollen pink.

on greenish, (smooth) exserted filaments

Tube of corolla & bases of filaments hairy  
(inside). (There are always pink  
granules like pollen at base. Remainder



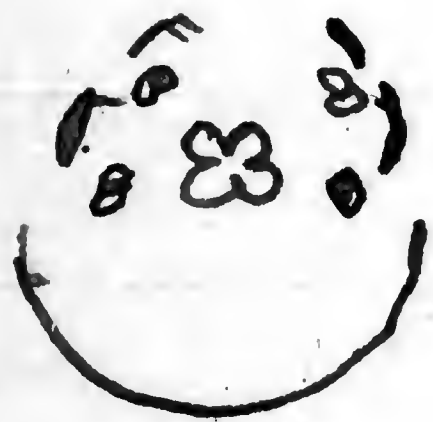
granules like pollen at base. Remainder

is orange colored + sticky.)

The lower pair of anthers (though  
their filaments are attached above  
& hence these are upper stamens)  
belong to shorter stamens.

Upper pair short, lower pair  
long.

Anther cells



anther X. diverging.

### No. 145.

Whorled leaves, small wood general  
aspect of Galium. Spreading,

3' ± 1' —

On swamp.

✱ H.X

calyx of 5 deep lobes (almost sepals)



obtus narrow, white above,

green along middle below.

Tube ~~of~~ roughened by short hairs.

ovary superior, thin-walled, 3 lobed

✱ X.



style short, white

curved, stigma lateral, bristles  
pink, white. Ovary smooth

ovary 3-celled, ovules numerous.

stamens hypogynous.





Fruit No. 146.

"Red-hot Poker"

Erect shrub, 1°-3° high, with  
terminal spike of bright red fls.

(1) bract (somewhat lobed)

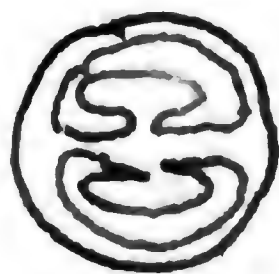
x/

Style very slender white  
smooth, stigma minute,  
terminal.

Ovary smooth, green, superior,  
on thick yellowish disc,

ovary 2 celled, ~~one~~ 2 ovules  
in each cell. (flatish)

x/



stamens

upper lip 2 lobed,

lobes entire,

narrow, acute

(cucullate)

upper lip of corolla

spread out.

Entire corolla

bright red, hairy.

Stamens 4, exserted (near base of  
tube) filaments hairy on one





(tube) filament hairy on one

(8) side (a line only) for  $\frac{1}{3}$  of way from base, pink, white toward top, anthers one-celled, acute & introrse. all appear in upper lip each anther sharp-pointed.

Calyx of about 8 lanceolate, smooth, scarious, very sharp pointed sepals.

### No. 147

White, waxy flowered vine, with almost sessile leaves. Herb. 5°-6° (?)



The limb of <sup>corolla</sup> calyx is rough-granular.



X1 (rather a large one)

Corolla

Calyx monophyllous with 5 inflated hooves-like recurved lobes to the border, each with a little protuberance. above, pure white smooth, tube greenish.

Throat almost closed,

The calyx is small, 5-lobed, lobes small, greenish.

Column style thick = to corolla. greenish

Calyx  
X4



hairy  
its lower half ~~granular~~ (~~or~~  
~~as the pollen grains~~)



anther

column

Anthers 1 celled, united  
firmly around top of  
column  
style & attached to it,

one-celled, exserted, 5.

The calyx occurs distinctly in stam.  
fls. Less distinct in pistillate

base of stam. fl. otherwise like  
other one.

Ovary, <sup>long</sup> hairy, green, inferior

The column and style are  
the same in length, thickness  
& color. The style is hairy  
about  $\frac{1}{2}$  way up (for a  
short distance along the  
middle). Ovary 3 celled  
one ovule in each cell

Both kinds of fls. appear



120th mnd of fls. appear  
on same stem, but seemingly  
in different clusters. Swamp

No 148 <sup>✓</sup> incanum  
Polypodium (= San Carlos)  
On fence post.

No. 149.

Woody vine with greenish wh.  
flower & ovate, alt. leaves, entire.  
On Lake shore, <sup>Norby</sup> climbing up a tree.



Calyx short, green, ~~slightly~~  
5 lobed, smooth; lobes obtuse

Corolla white (greenish)  
tube greener, smooth, narrow  
Border 5 lobed, lobe lance,  
acute.

anthers small brownish, 2  
celled, almost sessile, unequally  
inserted on tube of corolla near  
throat. Style = to tube, greenish,  
smooth, stigma clubshaped  
terminal. Ovary 2-celled,

ovules several in each  
cell; ovary <sup>superior</sup> ~~slightly~~ 2-lobed.

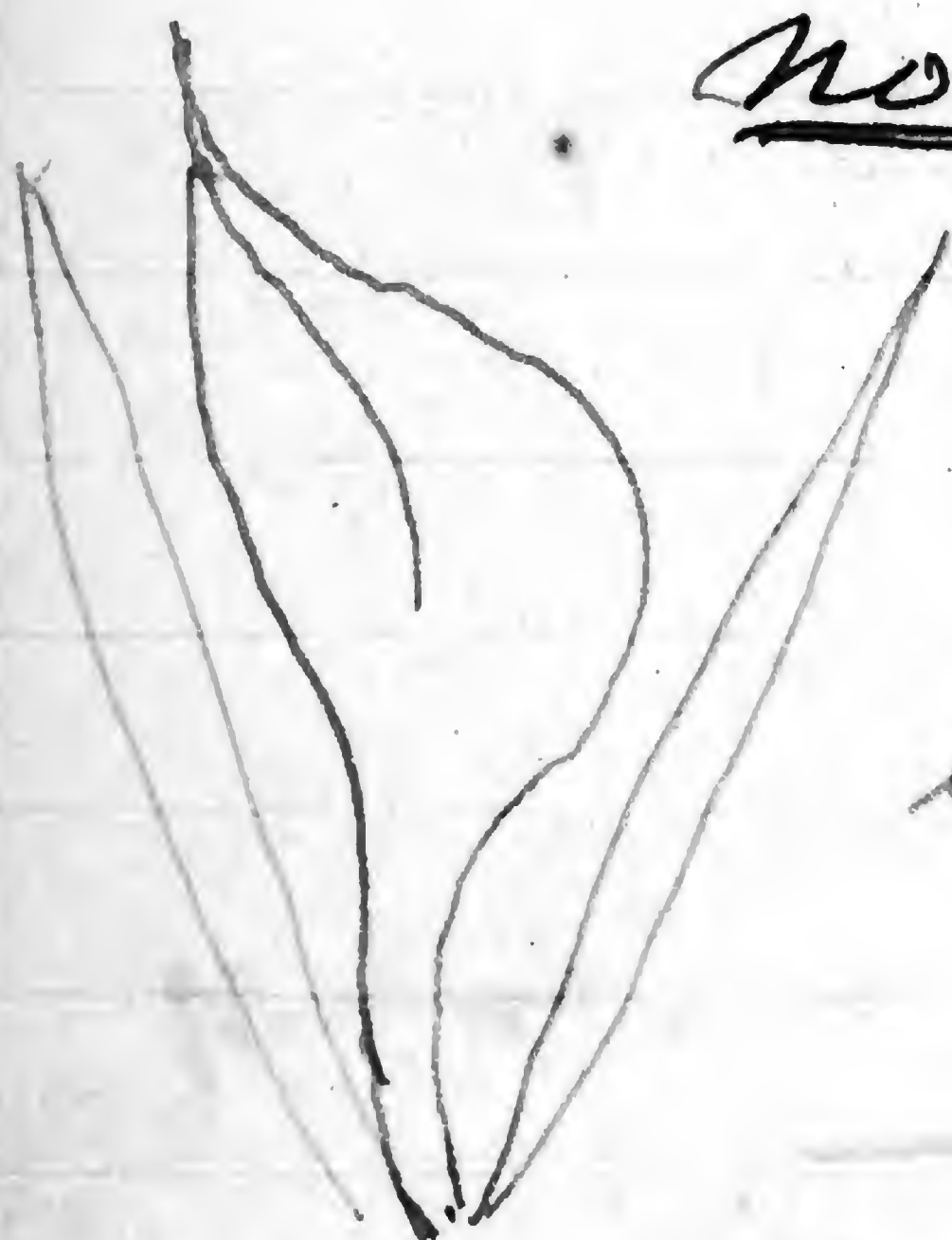




No. 150

More delicate composite, woody  
at base, 4' high, flower heads  
like small fireweed. North

No. 151

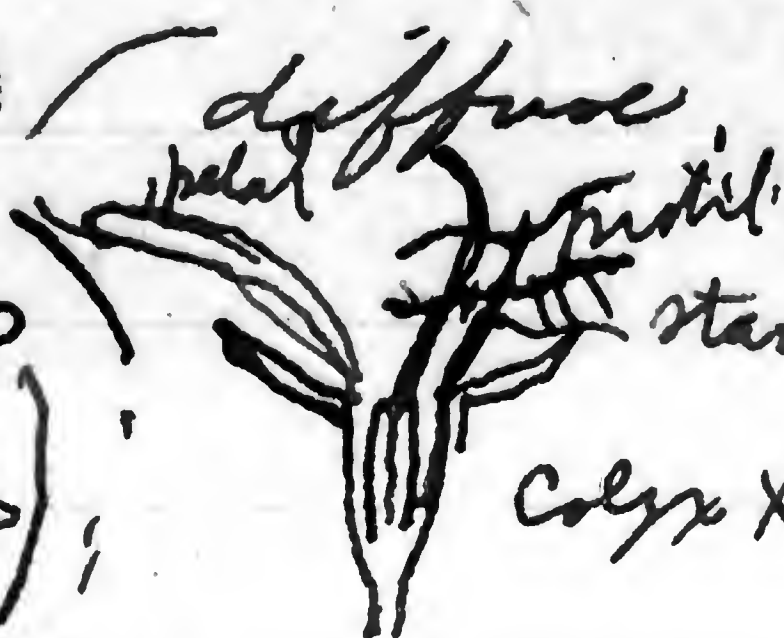


white flowers  
petals. Pressed  
Fruit & leaves - 2  
leaves.

No. 152

The pink flowers about found near  
top of Suethepe.

Plant 1' - 4' high, mostly in dense  
clusters,



diffuse  
petals  
pistil  
stamen  
Calyx more or less  
Calyx x1 purplish red  
covered with  
short hairs.



greenish in throat.  
 4 lobed, lobes lance, acute, spreading,  
 Persistent, bearded between lobes.

Corolla on calyx, of 15 petals



a small petal, which are deep  
 violet pink, & finally pink  
 somewhat irregular,

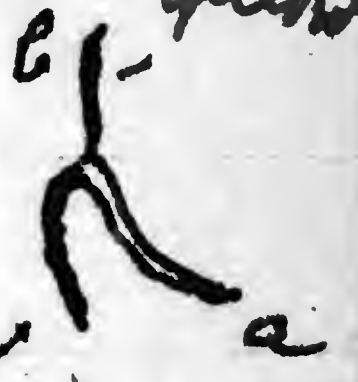


Stamens 8, the 4 opposite ones shaped  
 two celled, cells long, yellow,  
 filament smooth, pink.



1 cell of  
 ovary.

The alternate ones are shaped  
 the spur: a turned down &  
 inward, & rec, the upper cell  
 yellow as in other stamens. Filaments same.



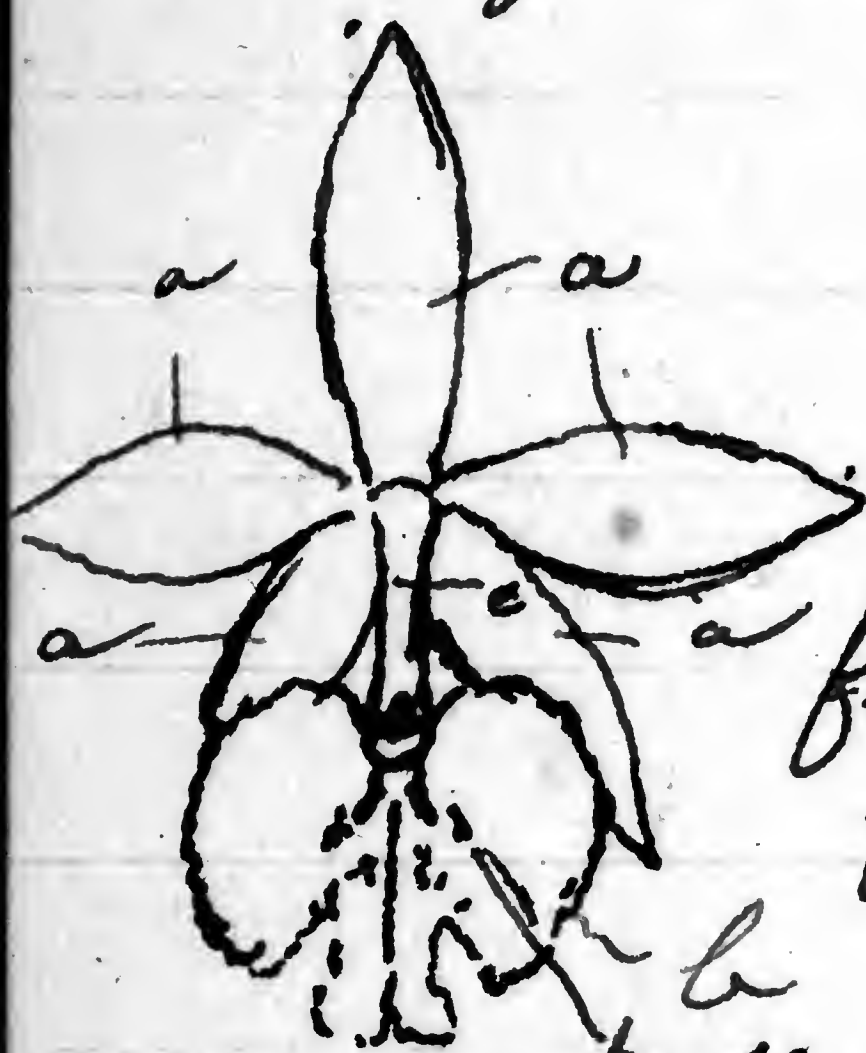
Stamens on calyx. Ovary 4 lobed,  
 green, pink & hairy at top. Style  
 curved pink, smooth, stigma small  
 terminal. Petals deciduous (quite.)

Ovary 4-celled, ovules minute, numerous  
 on an enlarged placenta.

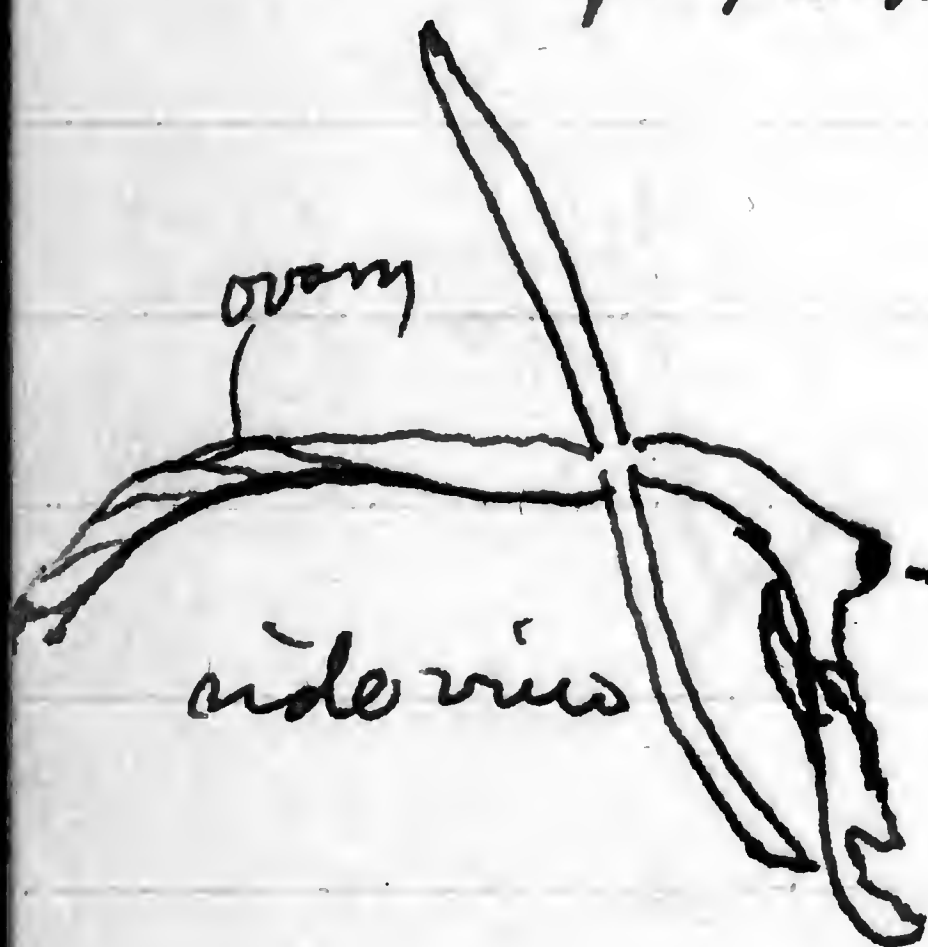


No. 153.

The deep yellow (orange) fleshy leaved plants (leaves in 2 ranks) from near top of Onetepe.



The five bodies (a) are nearly equal, bright yellow, acute, the 2 lower + 1 uppermost sepals (from this position) + the two lateral ones petals, the (b) being 3rd petal.



The column at c is deeper (brownish) in color.

There are a few spots on the lower petal.

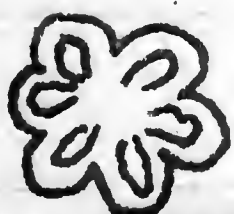
(x) is the anther with 2 masses of pollen.

All smooth.



anther opening  
little folds  
side view of end of column

The column is hollow at end, & stigmatic inside.  
Ovary 6 lobed, 6-celled, same color as perianth.





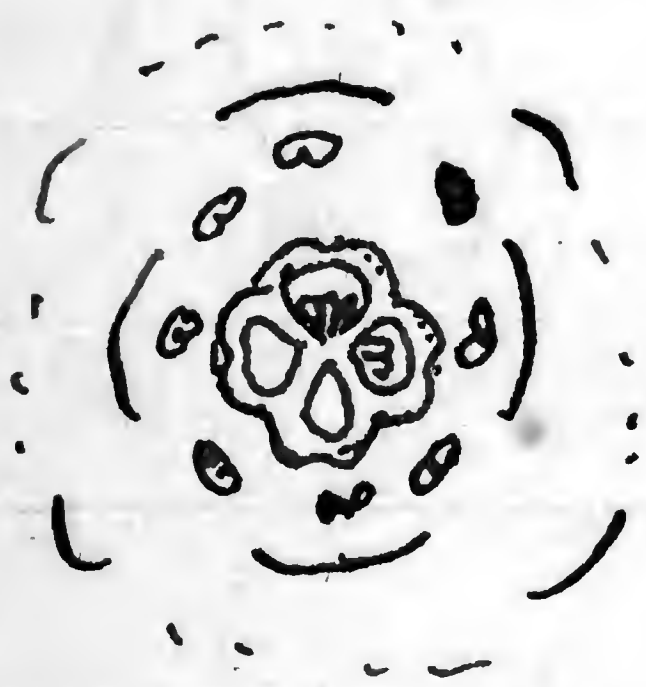
No. 154.

Small (4'-12') plant, hairy, with 4 light  
violet petals. Picked up at foot  
of Dinetche (not off horse; first plant  
that day).

Petals 4  $7 \times 1$  obtuse, pale violet (pink)

Corolla nearly (circle) regular, on calyx.

Stamens 8, on calyx, filaments  
jointed, pink <sup>smooth</sup> stamen. anthers yellow  
2-celled, opening by chinks at top.  
introrse.



Style short, erect, below  
anther (the stamens are  
somewhat exserted (the  
entire anther) included).

Calyx monosep. green  
long-hairy, 4 lobed, lobes

LF. calyx  $\times 1$

aristate, spreading

$8 \times 1$  pink

ovary smooth, with little tuft  
of hairs just at base of style  
green.

Style smooth, white at base, pink above  
stigma terminal  
Calyx closely investing ovary, but  
ovary superior. Ovary 4-celled, ovules  
numerous.



Fruit

NO. 155?


Small Phlox-like, hairy, white flowers  
from 3000 up Onetche.

Corolla monophet, white, purplish or pink tinge  
outside, especially on tube. Tube somewhat  
curved. Border 5 lobed, (lobe x 1)


Throat almost closed by tufts of white hairs.

Stamens on tube  $\frac{1}{2}$  way up, included,

Filaments short, greenish, anthers <sup>one</sup> 2-celled

purple, very acute  x, alternate, <sup>4</sup> 5

Stamens about equally inserted.

 fl. x 1.

Calyx green, tubular hairy  
5 lobed, lobes acute 3-10 ribbed

8 pistil x 1.



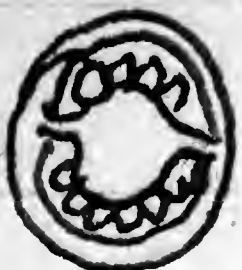
pistil x

Stigma clubshaped  
hermaphroditic white.

Filament short, smooth  
white (stigma not  
quite reaching stamens)

Ovary inferior smooth,

Ovary 2-celled, ovules  
numerous.





Fruit. No. 156.


The end-wee found on Onetepe.

It appears much like ours, same color.

The central flowers are certainly pistillate.

Fruit No. 157.


The "bear-berry" found on Onetepe  
toward top (4000 ft.)

 fl. x 1, <sup>-base</sup> V sepal x 1. Sepals 5;

lance, white (pinkish especially  
on margin), rather acute

Corolla inflated, lobes 5, small, spreading  
(recurved) obtuse. All smooth, white,

with pinkish tinge  
stamens 10, attached to very base of corolla,

 Filaments short (anthers <sup>reach</sup> 2 way up tube)

flat & broad at base, smooth, white.

anthers brown, 2-celled, introrse,  
bearded at top.

! Ovary superior, whitish, covered  
with short hairs, style erect, white (greenish)  
smooth, stigma terminal, extending a  
little beyond stamens.

The black berries have a rather pleasant  
taste. Shrub 8-20 high.

Ovary 5 celled, ovules numerous, small





No. 158.

Yellow small composite found  
near top of Onetehe.

Rays + disc both yellow,

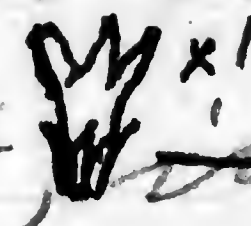
Rays pistillate (stigma yellow),

chaff of yellow (pappus), obtuse scales.

Pappus none.

Frut., No. 159

The bright-blue berried prostrate  
hairy herb found up on Onetehe.

Flowers small, <sup>regular.</sup> ~~pale violet~~,  <sup>x1.</sup> ~~violet~~.

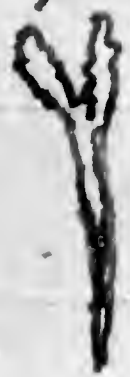
Ovary inferior, 2-celled, ovules numerous.

Calyx hairy, <sup>green</sup> with 4 narrow, hairy

acutish lobes. Corolla on calyx.

Tube of corolla white, limb blue, 4 lobed,  
all hairy outside.

Stamens 4, epipet. anthers 2-celled, blue



Style smooth, greenish, stigma


2 rough, enlarged. Filaments

smooth. Stamens - corolla

Stigmas just exserted, whitish.




Fruit. No. 160.

The hairy-podded pea from up on  
Ometepe. Calyx green, hairy 5-lobed  
A faded flower (lower standard  
erect , blue, with deeper veins.  
Wings + keel also seemed blue.  
Standard emarginate (A) deeper blue.  
of field Ovary hairy. Stamens with  
white filaments, anthers 2-celled.  
(Looks almost as if not mated. Probably  
1+9.)

No. 161

The small white fl. spreading, delicate  
plant from up Ometepe, at first  
right Galium-like. (hairy)  
# fl. x) Calyx of 5 lance. acute,  
green (scarious margined) sepals, roughened.  
Corolla of 5 small (= to calyx or shorter)  
ovate acute, white, smooth petals.  
Stamens 10, hy/hog, erect, exserted,  
filaments white, smooth; anthers  
2-celled  $\sigma$ ; the alternate ones opening  
first, white. Ovary superior,



smooth, whitish, styles 3 short, curved  
stigmas  white, about = to  
stamens. Ovary 1 celled, ovules  
numerous, stalked, on a basal  
placenta.

No. 162.

Little Composite with heads like  
miniature Fire-weed, + plant white  
hoary like our Indian tobacco.  
Found on Ometepe - 2500 ft.

Fruit No. 163.

The delicate violet (pink)  
Eupatorium-like Composite  
Found on Ometepe.

Very brittle.

Pappus of fine white hairs. Chaff  
none. Flowers all regular.



Fruit no. 164.

Very similar to above, but  
shrubby, blue flowered, &  
somewhat larger. Found also  
lower down the mountain.

no. 165

Somewhat larger, white flowered  
Eupatorium, opp. leave?

Found on Quetipe, up 3000 ft.  
Pappus with fine hairs.

Chaff none, achenes smooth,

Fruit, no. 166.

The opp. leaved Penstemon-like  
plant found 1500<sup>ft.</sup> up Quetipe.

Only in fruit. Grows  $1\frac{1}{2}$  -

$2\frac{1}{2}$ ° high.



No. 167.

Looks like an everlasting (Indian tobacco) but has pink scales to involucre. (quite bright)

Corollas all regular, yellow + as far as I could see, instituted (I know not as to stamens.)

No. 168

Narrow leaved, silky, yellow-flowered, <sup>papilionaceous</sup> shrub found up 2000 ft on Dinetepu.

Standard erect yellow, short-hairy outside, emarginate.

♂ fl. x 1. Wings yellow, obtuse, somewhat coherent with keel.

Keel whitish, coherent, enclosing stam. + pist.

Stam. 1+9, smooth, whitish.

Anthers small, yellowish,





Ovary very hairy (long hairy)  
 style slender smooth,  
 stigma rather large.  
 Shrub 1' high.



leaflet.

Fruit.

No. 169

The little hoary leguminose (no  
 fls.) with inflated pods (like <sup>small</sup> Baptisia)  
 found on mountain, about 2000  
 ft. up. Flowers bright yellow, papilionaceous.

Fruit.

No. 170

Shrubby at base, looks like willowweed  
 but has ~~little~~ <sup>many</sup> pomes(?) with many  
 rounded seeds. 1' - 1 1/2' high.  
 Found at foot of volcano.

No. 171

The very delicate, white-flowered  
 Polygala found on the volcano,  
 about 1500 ft. Calyx has violet  
 tinge.



Fruit

No. 172. Hypericum.

Minute yellow-flowered (like little  
~~St. John's wort~~  
~~Plantain~~) . Sepals green, lance, acute  
persistent, punctate (like leaves) with pellucid  
dots. Stigmas (+ styles) 3, ovary smooth  
green, superior, 1 celled, 3 parietal  
placenta - Petals yellow.

No. 173

Delicate, pink-flowered, plant found  
on volcano.



fl. x1.

Calyx ~~narrow~~ <sup>of sepals</sup> 4 lobed, 4 angled,  
~~sepals~~ <sup>lobes</sup> narrow, rigid, punctate;  
smooth, green. Sepals lance linear.

Corolla with tube delicate & closely investing  
ovary, border spreading, 4 lobed.  
lobes pink, ovate, obtuse; smooth


Stamens attached at top of tube of  
corolla, alternate, filaments  
delicate smooth, white. Anthers

2 celled. yellow, clustered about  
stigma (+ style + st.) .



Stigma large, green, capitate.



Style slender, erect, white smooth,  
Ovary superior, smooth, green.  
one-celled, 2 parietal placentae, ovules  
numerous. 

Fruit. No. 174.

Tall, very slender Polygala with  
purplish-red flowers. On volcano.

No. 175.


The large pie-plant leaved plant  
from top of Orizaba volcano.

Fls. green in compound spikes, each  
spikelet with a long, green, lance  
or lanceolate bract, serrate  
Each little flower with a deciduous  
green bractlet. No perianth ?

ovary about 4 angled, green, style  
short none, stigma small  
ovary 2-celled, at least 2 ovules  
in each cell. Did not find stamens




No. 176

Quinine  fl. x1. Inc 8' diam. 18° lat  
Sepsals <sup>6</sup>, ovate, obtuse, white, concave, rough.



Petals 6, ~~6 in one set + 3 outside~~,  
fleshy, smaller than sepsals, granular  
white, obtuse.

The three stamens look like  
petals above, white granular, obtuse  
The anthers are white, 2-celled, <sup>cells</sup> yellow.  
connective broad + white, projected above  
 <sup>projecting connective.</sup>  
cells of anther.

There are 3 smaller stamens (much  
smaller, with cells yellow + connective  
much smaller, white, probably abortive.  
Ovary small, smooth, ~~greenish~~ <sup>white</sup> (whitish)  
superior, style short white, stigma  
small terminal. Just about  
= to small stamens & the larger one  
close over all. Ovary one-celled (?)  
fleshy (probably only one ovule.)



no. 177. ✓ *Nephrodium*  
*conterminum*

Long-fronded *Aspidium* form  
near base of Onetepe.

no. 178. ✓

The ~~Aspidium~~ *Blechnum*, <sup>occidentale</sup> form  
near foot of Onetepe in deep  
gully.

no. 179. ✓

*Pteris quadrifida*  
" *biaurita*.

The long, narrow fronded *Pteris*,  
found at foot of Onetepe.

no. 180. ✓

The broad,  $\Delta$  fronded *Pteris*, <sup>*incisa*</sup> *clata*  
found near top of Onetepe.  
Also near foot. The latter is  
*P. clata*, the former *P. incisa*.

no. 181. ✓

The small *Blechnum*, <sup>occidentale</sup> form  
near top of Onetepe. May be  
same as no. 178.



~~Nephrodium~~  
No. 182. *Cicutarium*

The Polypodium ( $\Delta$  fronds) from  
near foot of Orutepe.

No. 183. ✓ *Asplenium*<sup>See</sup>  
*parvulum*

The little  $\Delta$  fronded *Asplenium*  
found near foot of Orutepe.

No. 184. ✓

*Gymnogramme*<sup>Calomelanos</sup> from foot  
of Orutepe (occurring up to top  
almost. Same as no. 79.?)

No. 185.

*Selaginella*. Found near foot  
of volcano, and also further up.  
The small spec. are from about  
3500 ft.

~~See~~ No. 186.

Little ~~hand~~ which goes



~~all to pieces. Cult. in~~

~~Mrs. Cantons garden.~~

No. 186.

An orchid

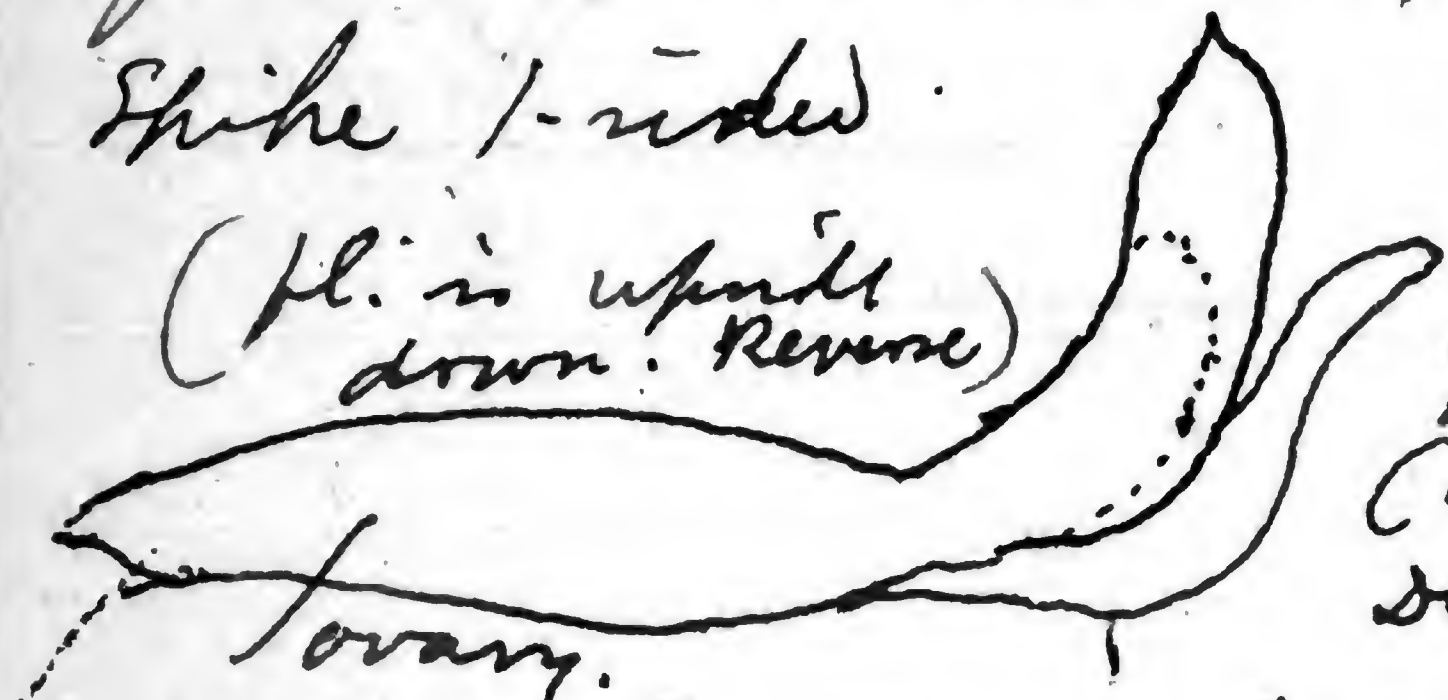
Tall-spiked, pale, meek plant  
found on mountain, about 1500 ft.

Spike 1-sided

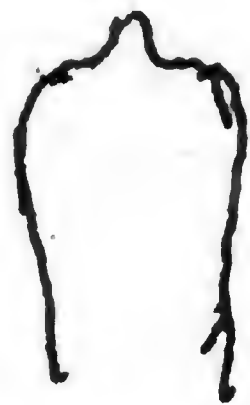
(fl. is upside  
down. Reverse)

fl. x1.


(only calyx & shows.  
dotted line = corolla)



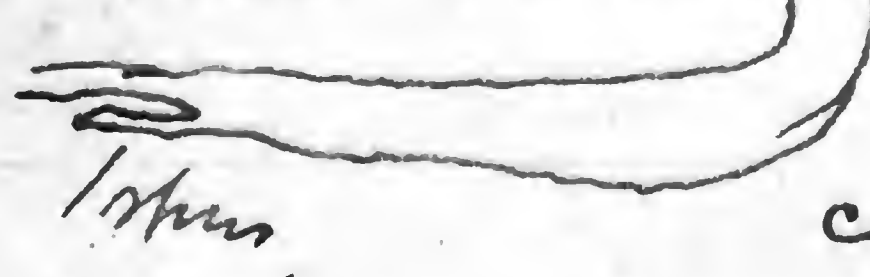
Ovary.  
Calyx very, much, greenish hairy,  
3 lobes, 2 tipped. Upper lobe turned  
down, the lower of 2 lobes turned down  
also. Upper lobe



Lower  
lobes acute.

Corolla of one lobe, greenish turned  
down.  <sup>ridge</sup> front view lobe of corolla.

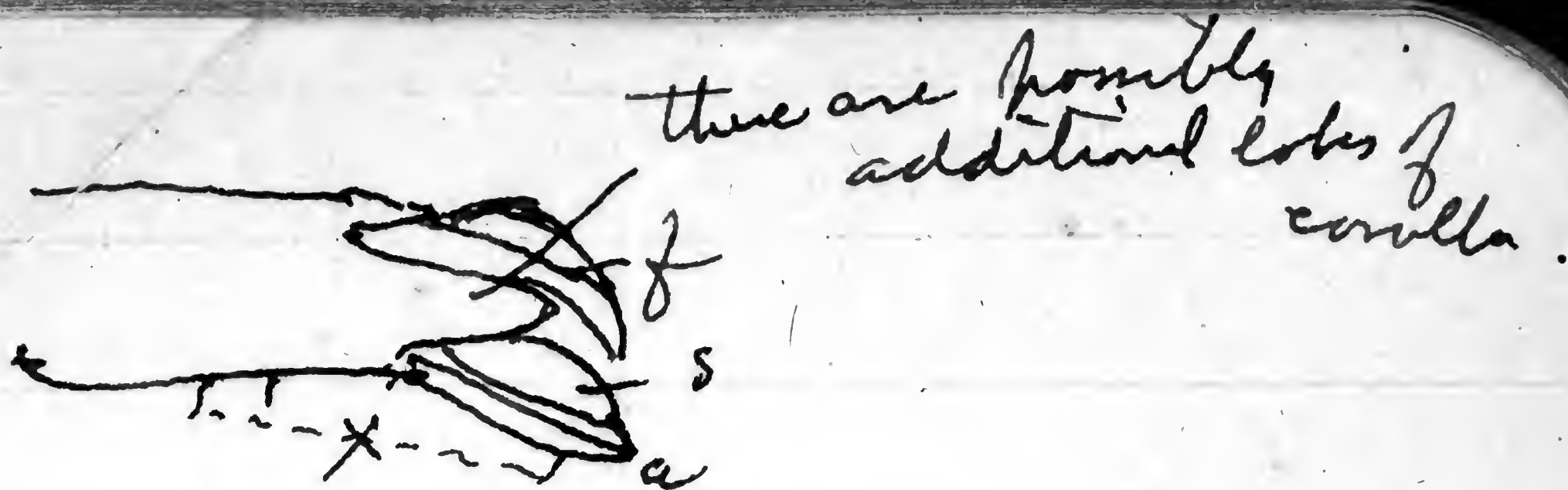
Corolla with 2 fleshy spurs at base  
where it attaches to calyx



Just above there the  
corolla is hairy inside

The two stamens are fastened at top  
of pistil & are covered by a  
glap.





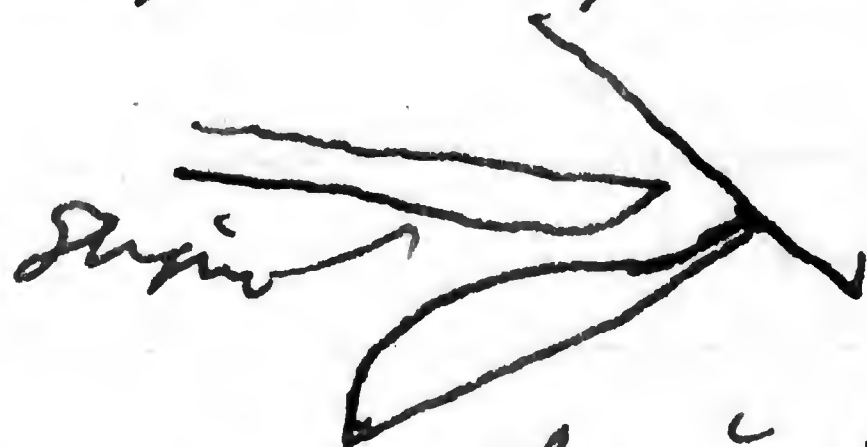
x = stigmatic surface.

s = stamens fastened at (a) + movable

f = flap covering stamens

There is a sticky disc at a + the so-called 2 stamens are two pollen masses. They ~~off~~

stigma sticking to an object as shown above, their own weight depresses them



so that when an insect visits another plant it pushes them under the stigma. The pollen masses are light yellow + coarse at base. The anther (flap) has the upper part (aridge, rounded,) fleshy.



|| under view of stigma, green.

Ovary 1 celled with 3 fleshy  
parallel placentae, with very  
many ovules.

### No. 187.

Hairy plant with small orange flowers

On mountain - Shrub 10-70.

Sepals 4 small, hoary, whitish, acutish,  
lance. ~~fl.~~ fl. x/

Corolla monopetal, tube & calyx, lobes  
4, hoary white outside, orange  
within, tips reflexed a little, lobes  
ovate, acute. Each lobe has a  
little fold just back of spreading  
tip, & below this inside the lobes  
are hairy.

Stamens 4, filaments just at top of tube,  
erect, alternate, introrse, anthers  
2-celled. whitish, each with a little  
spine (extended connective)

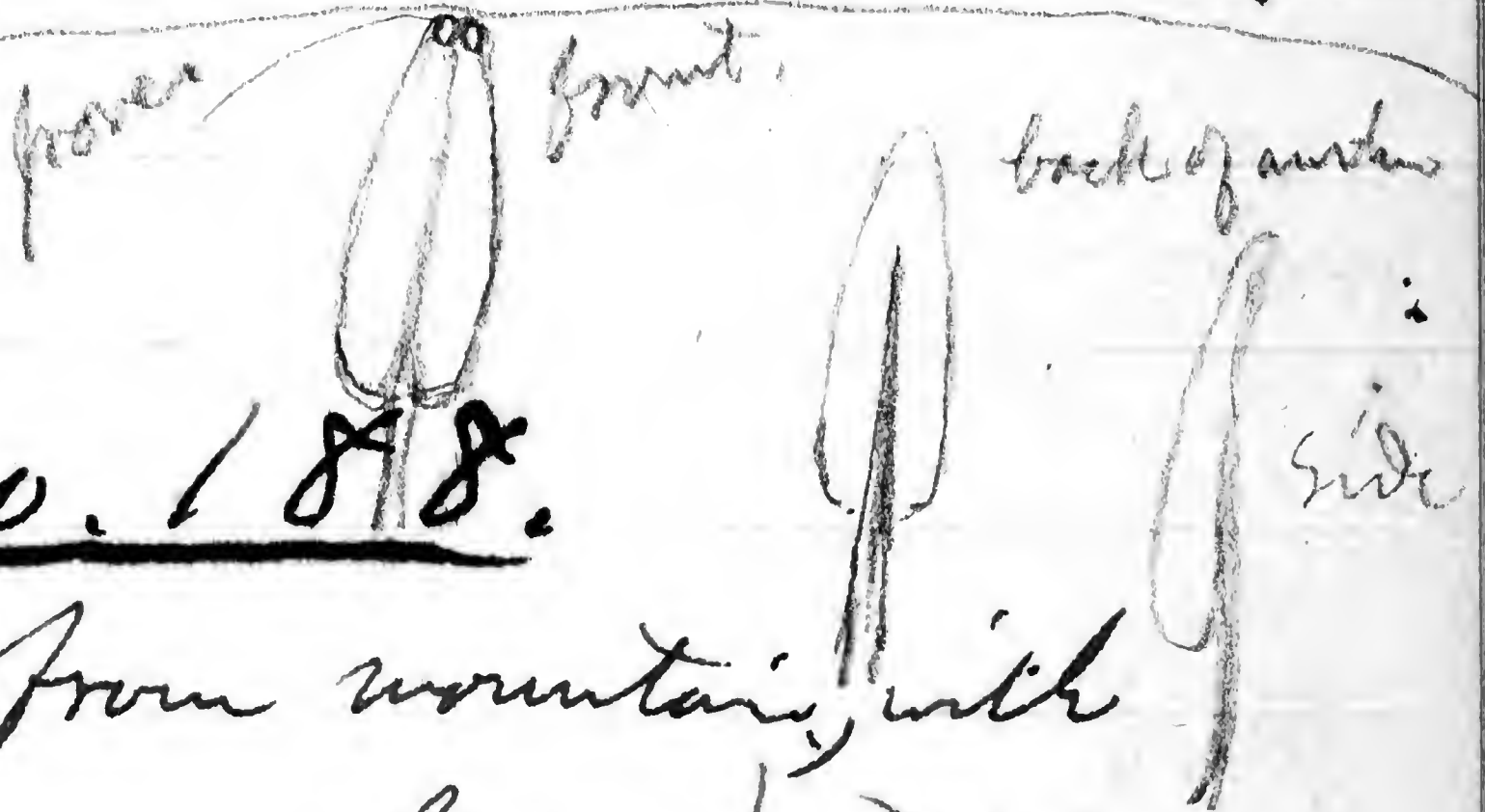
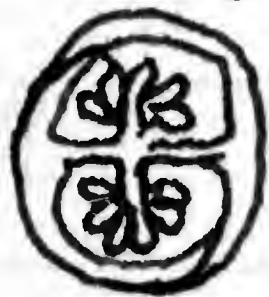
filaments smooth.

Included = to  
pistil.





Ovary superior, hairy,  
 style ~~short~~ short, erect, smooth  
 stigma rather large, somewhat  
 3-lobed. 2-celled  
 Ovules numerous

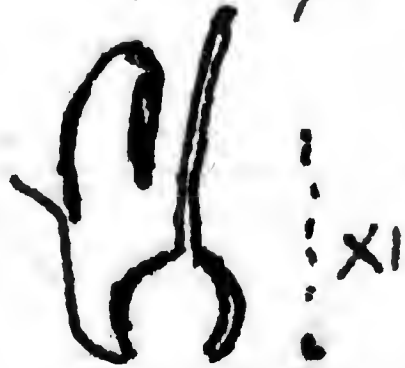


No. 188.

Hairy plant from mountain, with  
 very deciduous white petals.  
 Petals 5 ovate, ciliate, apex terminating  
 in a long ciliam, white. on calyx  
 Calyx membranous, hairy, green, 5 lobed,  
 lobe linear, ciliate. petal x1.

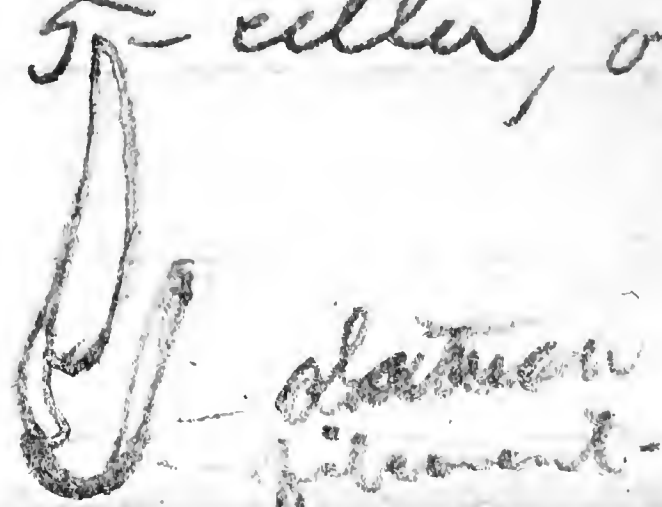


Stamen 10, on calyx,  
 curved in



Anther 2-celled?

Ovary superior, green, smooth, style  
 smooth, greenish, stigma small,  
 terminal. Ovary 5-celled, ovules  
 numerous



stamen  
 filament



No. 189

The "Indian Pink" from up  
the mountain. Bracts red.

Ovary smooth, superior, 2-celled.  
Style slender, long. Ovaries very  
numerous.

Fruit

No. 190.

Cleome - growing in Mrs. Cantor's garden.  
Petals 4 white erect (all turned up)  
clawed. Calyx of 4 lance-linear



x 1 = petal.

acute, green, hairy

spreading upwards.

Stamen x 1.

anther long, 2-celled.  
brownish(?) pollen  
yellow, extensive(?)

stamens 6, filaments long, purple,

smooth

stamen x 1



pistil x 1

ovary on long purple stalk,  
green, stigma renate.

A fleshy disc or receptacle  
ovary 1-celled, 2 parietal  
placentae, numerous ovules.



Fruit No. 191

Cedar-tree. <sup>native.</sup> Mrs. Carter's yard.

Fine tree, 3' or more in diam.



Bark rough, long cracks, looks just a little like red-oak, but not so coarse. Seeds winged, scales attached above. Fruit when bruised has an Onion odor.

Wood red. Ls. ~~all~~ ~~at~~ ~~all~~

No. 192

White-fl. in term. cymes.

Lvs. alt. entire. Coarse plant, spreading over fence along road East.

 fl. x 1 Corolla funnel form, monopetal, white, 5-lobed, lobes ovate, ~~obtus~~, each with a midrib extended into a ~~cross~~. Stam. & pistils near bottom of tube. Stam. 5, alternate, anthers sessile, yellow, 2 celled, introrse.  - Tube of cor. green at base



Calyx of 5 lance, acute green sepals, unequal.  
1. 8 <sup>white</sup> ovary smooth, superior, green, style  
almost none, green, stigma green, very  
large. Ovary 2-celled, with  
at least a pair of ovules in each (or  
just possible 4-celled with one in  
each.)

Fruit NO. 193.

The rather large-headed, pink  
flowered + pink scaled Eupatorium  
A long climbing vine, woody,  
15' or more long.

NO. 194.

Nephrodium (Aspidium-like) fern.  
In deep wood. E. of Muzogalpa.



7 mt

No. 195

The deeply 3-lobed fruiting vine,  
10°-15° long -

seed. No. 196

The little 2 leaved, herb with  
red, 2-ribbed berries.

On ground in deep woods, East,



Fruit, No. 197

The vine with bur-like (very spiny) fruit. Also found in fruit at San Carlos. Stem prickly & grooved like blackberry.

Calyx minute, deeply 5 lobed, lobes spreading, greenish, smooth.

Stamens 5, each filament with 2 sticky glands near base, those of adjacent stamens adhering & forming a continuous ring.

Saw no pistil. Guess there are only staminate.

See fruit.

Fruit No. 198

Paraiso. Bark smooth, greenish, with numerous brown lenticels. Branching (lvs.) Cult.



No. 199

Scaly-stiped *Adiantum*.  
In deep woods east of Moyogalpa.

Fruit. No. 200

Coffee. Small spreading tree,  
with gray bark, finely long. cracked.  
4' or 5' in diam 10' high -  
spreading.

Crown spreads 15' in a tree  
10' high.

Fruit. No. 201

Cacao. Tree 15' high, 6-7'  
diam, erect, branching, bark  
gray brownish. The fruit  
comes from trunk, branches, etc.  
everywhere, like the tree gourd.

Quil



Fruit, <sup>wood</sup> No. 202

Tree cotton - 12' high.

Seed. No. 203

Guanania - a large-flowered  
(purple) Passion-vine (coarse)  
Fruit large, rather squash-  
looking. Not very good.

Seed. No. 204

Guanávana - (= Annona?)  
Fruit covered with conical  
<sup>tubercle</sup> spine-like projections. Does  
not pleasant. Cult. eaten.  
Ground leaves used in blood-  
vomiting. Small tree, gray smooth  
bark.

seed +  
Fruit, No. 205

Milkweed - Pod with very many  
smaller tubercles. A vine 15'  
No lvs. found.



No. 206

Oenothera?

Petals 4 narrow, yellow . . . . . = length

Sepals 4 shorter, green, acuminate,

Stamens 4, yellow, alternate,

Anthers 2-celled, inrose,

Stem, hyssop.

Ovary superior, green, 1 celled  
somewhat hairy, 2 paricled

Placentae.

Fruit, No. 207 (looks like sweet clover)

Carria leaved. Said to be used

for making ink. Fine leaflets.

No fls. & no good leaves.

Ernesto Canton thought it had blue  
flowers.



Frut. x  
seed. No. 208.

Chirca - Small tree with  
milky juice. Milk (+ also kernel  
of seed) used for tooth-ache.  
Breaks tooth -

Frut. no. 209.

Coarse Verbena with deep  
purple, rather large flowers.

Frut. no. 210.

Pea with light red seeds.

Found S. East. No fls.  
called "crab's-eye". The seeds are made into  
necklaces + worn by children in case  
of diarrhoea!

Frut. no. 211

Bright blue-berried shrub 8 ft  
high. S. East in woods.



No. 212.

Blue flowered Desmodium.  
Shrub 1°-2° high.  
Collected at foot of mountain  
(see 270)

Frut. No. 213

Fine leaved shrub 1°-3° high.  
Found only in fruit at base  
of volcano (S.W. side)

No. 214.

Notholaena  
brachypus J. Sm.

~~Chilanthus~~ - found on S.W.  
slope of mountain. In a  
dry gully.

Frut. No. 215

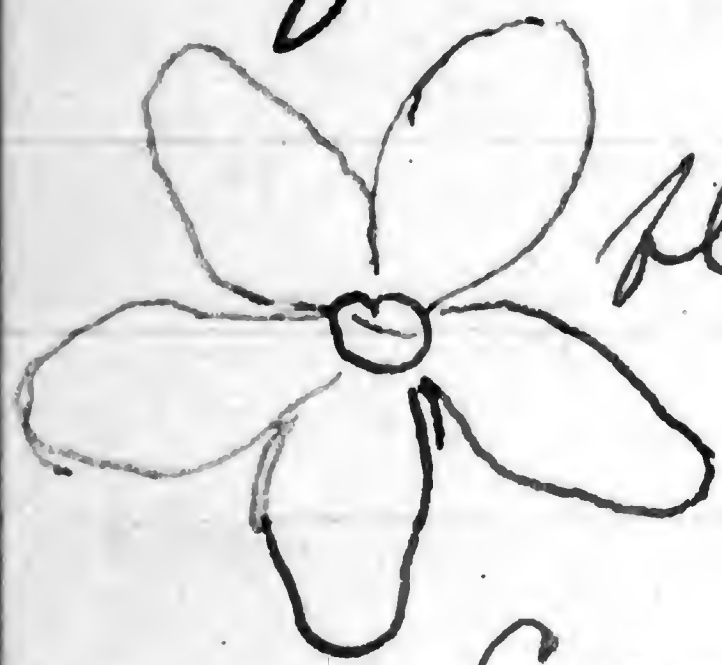
Pea with rounded leaflets  
& brown pods. No fls.  
Found S.E. near mt.



Fruit

NO. 216.

A myosurus on a large scale.  
At first reminded me of Ochra  
Plant coarse, herb, 2°-5° high.  
In dry ravine on S.W. slope  
of mountain.



Corolla violet

fl x 1. Tube short, 5 lobes  
lobes obtuse, ovate

Corolla hairy outside.

Calyx of 5 lance, green hairy  
sepals, each with a brown  
tip (point.)

Stamens 5, alt, epipet,  
filaments purple, lower half  
hairy, upper smooth,  
anthers brown, versatile,  
2 celled, Exserted.



Styles 2 spreading a little, stamens  
purple, hairy in lower half,  
stigmas terminal, green.  
Ovary green, hairy superior.



Ovary 1 celled, 2 double  
parietal placentae.  
Is it 2-celled?

Fruit, No. 217.

Small tree with salmon colored  
berries in axile clusters. No fls.  
Dry ravine - S.W. slope Mt.

Fruit, No. 218.

Flag-leaved, red berried plant  
along dry ravine on S.W. slope  
of mountain. No fls.  
Grows 2' high



No. 219.

Small flowered (yellow) shrub from  
foot of mountain.

Plant hoary, 6° - 20° high.

Flowers in axillary clusters.

Se

Fruit. No. 220

*Guaiacum melano.*

A large tree, Basswood like  
in general appearance.

Fruit stuck on a stick is used  
by the Indians for mixing "tiste"



Fruit + seed

Rathye

No. 221

Large tree with palmate leaves  
(about 5 leaflets), with long  
twisted, Catalpa-like pods.  
Leaves are opposite,  
No fls.

Fruit No. 222

Cacao-like fruit. Vine (woody)  
quite long. (called Kučaria)

Fruit

No. 223

Woody vine with date-seed-  
like fruit (3 lobes).



Fruit, No. 223 a

Small-leaved medium-sized tree  
with flat pods (a little like *Cercia*)

Fruit No. 224

Harsh, woody vine with 4 lobed  
black fruit.

In dry ravine S.W. of Mt.

Fruit, No. 225

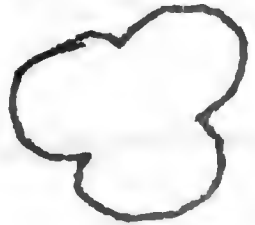
Small tree with brown-gray bark,  
red berries, & oblanceolate leaves.  
In woods East.

Fruit, No. 226

Wh. flowers, climbing Eupatorium  
Woody, East.



Fruit No. 227

Small tree with 3-lobed fruit.  
(leaves green (dark) smooth, thick  
entire.  fruit 1' in diam.

Fruit. No. 228

White fl. vine in general  
appearance something like  
no. 122. (This is no. 122  
in fruit?)

Fruit seeds.

No. 229

Passion vine. A rather  
coarse vine, climbing over a  
small tree. Fruit large  
green. (Have I seed &  
fruit?)

Fruit. no. 230

Woody vine, East.  
Brown fruit & compound  
leaves of few leaflets.

Fruit. no. 231

Large tree with trunk  
like elm. No fls.  
East. Sticky hard fruit.

Fruit no. 232

Small tree with black fruit  
3 seeded, & like Black Haw  
in general appearance

Fruit no. 233 (Polygonum like)  
Grooping shrub with terminal  
spike of red bracted fruit  
(these bracts include the one  
brown fruit. - No wood E.)



No. 234

Yellow mallow with brown center.

Petals unsym. Purple-brown at base. Tall shrub.

Ovary 5-celled. Stamens yellow.

Fruit No. 235

Shrubby (8' high) nettle, with smooth stem, but prickly leaves, etc. Fruit in branches on the side of nearly base stem (leaves fallen).

No. fls.

Fruit No. 236

Very spiny, hard-fruited (small tree?) woody plant with alt. leaves.


The lvs. cordate, acuminate, entire.

Fruit splits up into sections.

no. 237. ✓  
Acrostichum alienum Found in  
 woods east. Not common.

Seed, no. 238.

Mango. Large spreading  
 tree with drooping branches &  
 gray, rather smooth bark.  
 Cult. Fruit edible, the fleshy  
 part orange.


 fl. x1 Sepals greenish, lance,  
 acute recurv. 5

Petals 5, spreading reddish with  
 brown bases & veins. hypog.  
 5 fleshy lobes of disc. alternate with petals  
 & bury (?) ovary.  
 Ovary smooth, superior, green, style  
 slender (on one side) stigma small,  
 terminal.

Stamen 1 (usually anyway) with oblique  
 filament (not running up straight &  
 with 2 celled, brown, versatile(?) anther.  
 Sometimes the one stamen seems to stand  
 alone in center of flower. 1 celled, 1 ovuled.



Fruit No. 239.

Small flowered, (yellow), spiny-fruited  
shrub 1°-6° high.  fl x 1.

Sepals green, 5, lance-linear,  
hairy.

side view of sepal.

Sepals joined at apex + each with a little  
fold inside, at apex, which may be  
= to petals. Brown at tips of sepals.

Stamens 10, <sup>all</sup> yellow, filaments erect,  
anthers small, 2-celled, versatile.


Pistil = stamens. Ovary hairy  
green, superior. Style smooth  
erect green. Stigma small  
terminal.

Along roads, etc in wood

no. 240.

Large tree with thick shining,  
leaflets (pinnate) + loose


panicle of small greenish  
flowers.

Calyx monosep, deeply 5 lobed, smooth,  
greenish.  fl. xl.

Corolla of 5 oblong or oblanceolate  
petals, acute, smooth, greenish  
stamens 10, long.

Filaments exserted, yell-green smooth  
erect; anthers ~~sessile~~ <sup>iminate</sup>, 2-celled, yellow.

Pistil - ovary superior, 5-lobed

 hairy. There are 5 little

hairy lobes come up over the

ovary between it & stamens.

The ovary is smoothish, & green-  
yell.

Found no style or

stigmas. Bark smooth, gray,  
with white spots.

No. 241

Sedge found on bank (high)  
of Lake Lenth.



Frut

No. 242

Plant like tall very slender  
goosegrass.

Grows 1°-7° high. Common  
everywhere.

No. 243, a red shrub

Weed - Spurge-like.

Lvs. 2 ranked, fls. small, in  
axillary clusters.

Involute red, with white glands  
in sinuses, ovary hairy 3-lobed

Leaves opposite. Rather sharply  
3-angled.

No. 244

Purple, (deep-red) herb found on  
streets of Marogalpa, near  
lake. (Like Mrs. Jones' specimen)



Calyx deeply 5 lobed  
lobes linear acute  
green, hairy

Corolla salverform  
tube greenish, hairy

Border 5-lobed

Throat deep purp. red.



Throat with circlet of short hairs

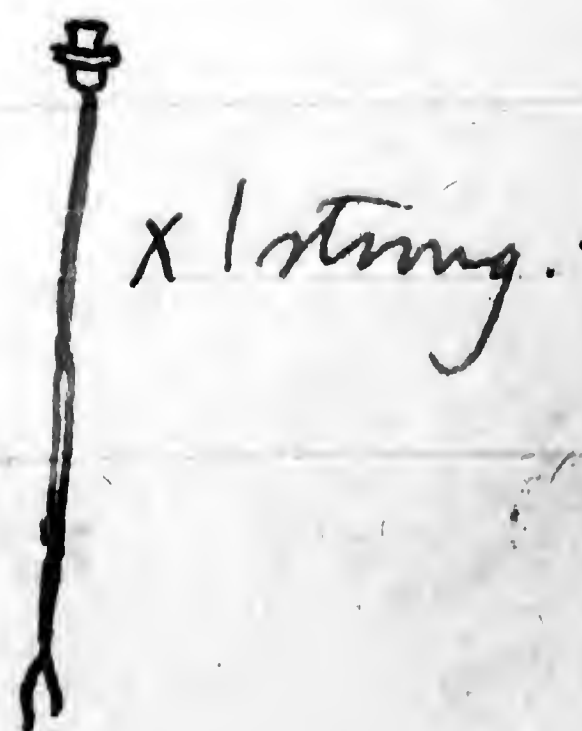
Stamens 5, white, anthers 2 celled  
yellow, dehisc. long  
stigma just below them

stigma green

Ovary superior

ovary 2-celled (E2)

2 glands (?) narrow, at  
base of ovary.





Frut.

No. 245.

Black-seeded Grass.  $1\frac{1}{2}$ ° - 7° tall.  
Grows along fences & in wood

Leaves by

No. 246.

Coarse weed (like *Datura*  
(strong-scented) with  
5-palm. leaves. Roadside <sup>10-30" high</sup>

The terminal fl. in each cluster is star.  
& has a 5 lobed calyx. The stamens seem  
to be quite numerous, on rather short  
filaments & with yellow anthers.

The pistil. fls. are below, in each  
cluster & have a calyx of 5 green,  
lance, upst., rather long

Ovary 3 lobe green, smooth, superior  
styles 3, spreading, each with 6  
spreading, linear stigmas \*\*\*  
Ovary 3-celled, each (in fruit) one  
seeded.

sus

No. 247

Loose, spreading shrub.  
With finely serrate oblance, or oblong  
leaves (acutish or obtuse). Lvs. opp.


Fruit.

No. 248.

Achote - Tree - Young fruit  
used in soup. Also said to  
be used for ink.



Fruit, No. 249.

A tree with brown, somewhat hairy, 9 seeded pod. Leaflets elliptical, acute .

Found out toward St. Jesus Maria

Fruit - No. 250.

Sapote - Large tree.

Fruit orange colored inside (really red) & when soft, very sweet.

Bark gray, trunk straight, in general appearance like the smoother-bark form of White Oak.

Branches not spreading as much as seems to be the rule in these trop. trees. Leaves ob-lance-ovate, thick, dark green above -

No. 251

Gurion - Tree with leaves  
like cornuculo (so I was told)  
✓ fruit with a sharp point  
Eaten by children.

No. 252

Slender white Polygonum - swamp  
Same as San Carlos species.



Fruit No. 253

Great tall Composite, yellow, 7' high.  
Possibly - (13 + 52 ??)

Rays sterile. Chaff of lanceolate  
acute, scarious chaff.

Pappus of a few irregular, ragged,  
short white scales.

Disc & rays both deep yellow.

Fruit No. 254

Brown-wood, Camia-like shrub  
in Mrs. Cantons Garden.  
(small tree).

.. No. 255 ..

The shrubby yellow-fl. Comp. Cult  
growing by fence across the  
street from Rios. Not a Comp.  
Ovary superior, 3 celled, 3 lobed, smooth.

Style 3. spreading with stigma small.

Style 3, spreading, smooth, stigma <sup>small</sup> ~~terminal~~  
Petal x1 Petals 5, clawed, smooth, yellow.  
Sepals. & claws of petals, green, lance, acute,  
scarious margin. Stamens 10, filaments  
unequal, yellow. Filaments smooth.  
Anthers elong. 2 celled, dehis long

Fruit. No. 256

The "Vegetable Sponge" (Gourd.)  
yellow. flowered. Creeping over  
fences at Morogalla,

No. 257. ✓

Formosum.

Delicate Asplenium - found in  
ravine near fort of Mt.  
On volcanic rock.



No. 258.

Tree 1° in diam. 30° high. Somewhat branched, branches ascending.

Bark gray, long, roughened (split).

Flowers wh. abundant. Sweet scented.

For description of flower see under 268. This I was a mistake, called "Laurel," <sup>Fls. dried &</sup> used for fevers.

Fruit, No. 259

Very large, spreading-crown, tree 7° in diam. at base. Gray, staly bark. Fruit Plum. like.

No. 260.

The third "Bejuka" found out S. E. toward mountain.

The leaflets are 3, very coarsely

dentate. Flowers seem to be  
much like no. 6.

Fruit no. 261.

"Frijolito" - Shrub 7 ft high.



Standard of the  
usual emarginate form  
yellow, with numerous dark

red veins, smooth. Honey gland  
at its base, between the little spur.  
Wings obtuse, smooth, uniform yellow.  
Keel coherent, light yellow smooth,  
enclosing stam. & pist.

Stamens 1 + 9, fil. greenish, smooth,

anther yellow 2-celled, small

Calyx 5 lobed, lobes somewhat  
unequal; green, hairy (short.)

(ovary hairy, purp. green) style white,  
with trace of bristles,  
stigma small, terminal.

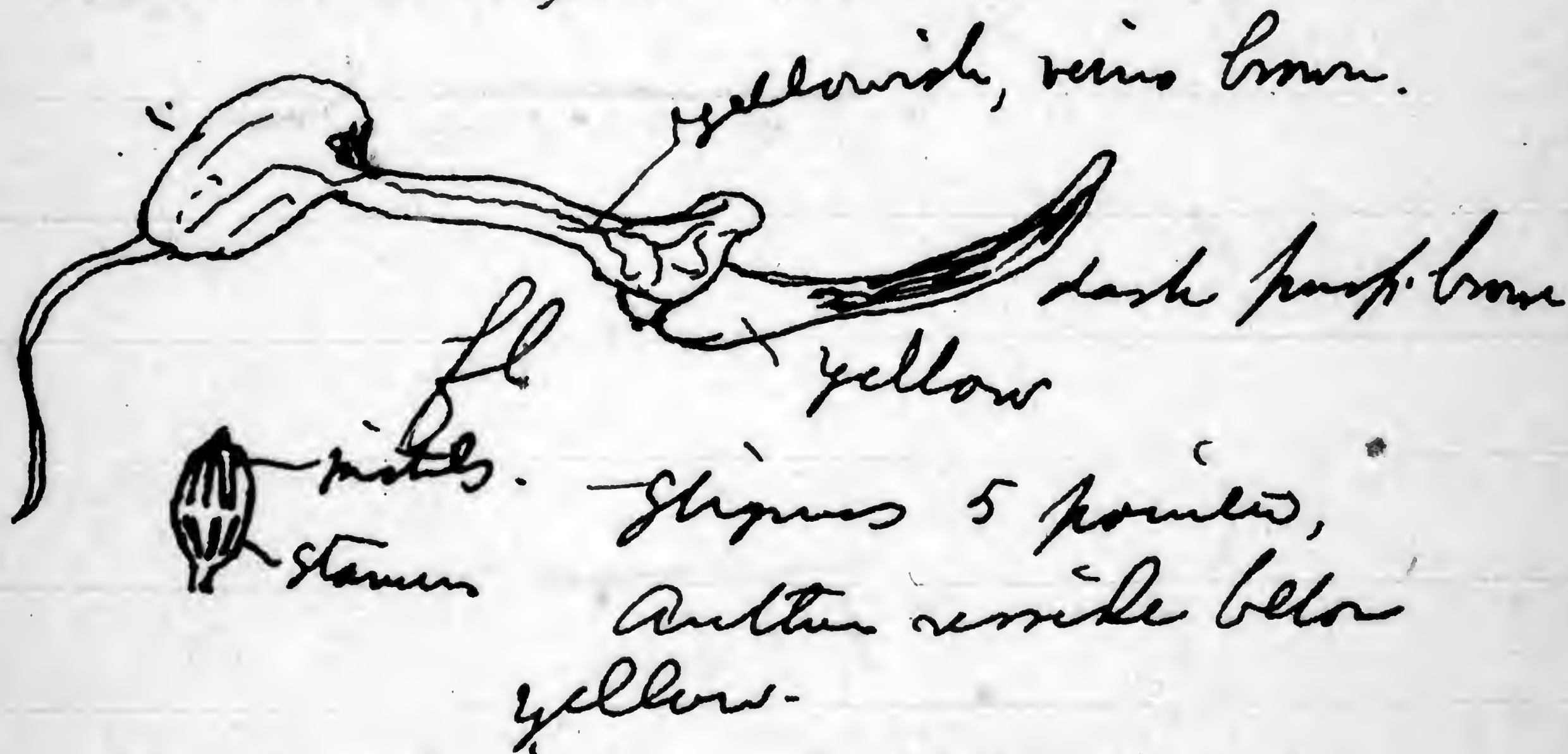


No. 262.

Tree with spreading crown, reddish smooth, "tristed" bark. In fruit, fruit with spatulate appendage like a persistent petal.

Fruit, No. 263.

Slender vine, 4°-6° - cordate leaves.



Stigmas 5 pointed, Anthers sessile below yellow. Calyx with only the 2 lobes, upper short, lower long. Ovary 6 celled, with numerous ovules.

Fruit no. 264

Tall erect coarse herb, with opp.  
petiolate lvs. & white fls.

Eupatorium-like in appearance,  
along road East (North)

Fruit no. 265

Tree 8 in diam. dark gray,  
smooth bark. (or large shrub)

Fls. yellowish, in spikes.

\* fl. x, Calyx of 5 greenish yellow, ovate,  
obtuse apex, spreading.  
Fls. almost sessile.

Stamens 8, spreading, filaments short  
slender, white, smooth; anthers white & x  
innate (?) introrse-looking.

Filaments are confluent with a sort  
of thin disc at base.

Ovary 3-lobed, white, superior, smooth  
style 3, yellow, spreading, each capped  
by an irregular, rather large, whitish stigma  
Ovary one-celled (?), one-seeded (?).



Fruit

No. 266.

Slender, prostrate mallow - yellow.

Petals yellow, unguiculate. (?)

Calyx of 5 cordate green, hairy  
sepals, or very deep lobes, with fold  
in sinuses.

Ovary smooth, 5-lobed.

Along road in woods east.

Fruit.

No. 267.

Small white mint, fls. in heads.

(See if fruit of this was not passed off  
for another species - Chepa-like Comp.)

Corolla 2 lipped, both lips <sup>like narrow, hairy, greenish.</sup> recurved, upper  
2 obtuse lobes, lower 3-lobed, white.

Style white, stigma 2 lobed, exserted  
& lying on lower lip.

Stamens exserted @ anther in 2 pairs,  
the 2 lower (as the anthers show)  
longer. Anthers yellow 2-celled.



Leaves serrate (coarsely) petiole,  
off. hairy.

7 fruit

No 268

See 258  
~~269~~

Small tree, <sup>more like Siberian crab</sup> ~~somewhat plum-like~~ in  
general appearance, springy & with  
entire, ovate lvs. in clusters at  
ends of branches. <sup>fruit shows many seeds</sup> & 2 cells or 2 ~~pericarp~~

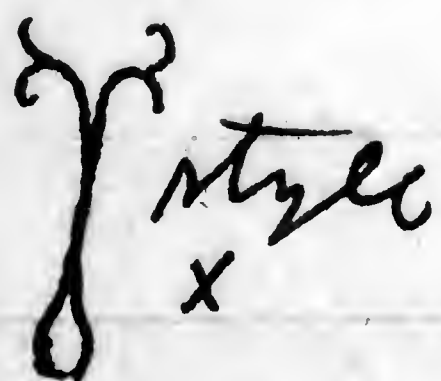


fl. xi.

Calyx tubular, 10-ribbed, rough  
green, with 5 small lobes. <sup>(the corolla tube)</sup>

Corolla monopit, 5 (17 = shape) lobes,  
white, smooth.

Stamens 5, alt. filaments wh., exserted,  
smooth, bearded at base, attached to  
throat of corolla. Anthers 2 celled,  
versatile, brown (yellow?).



Style 2 lobed, each stigma  
2-lobed, white, smooth.

Ovary smooth, white, superior  
4-celled, <sup>singular</sup> ~~one~~ ovule in each cell



Woods east. ( ~~the fruit pink~~ )



Fruit,

No. 269. (~~272?~~)

The climbing Apocynum.  
A vine 180 ft long, with very  
slender, long pods. No fls.

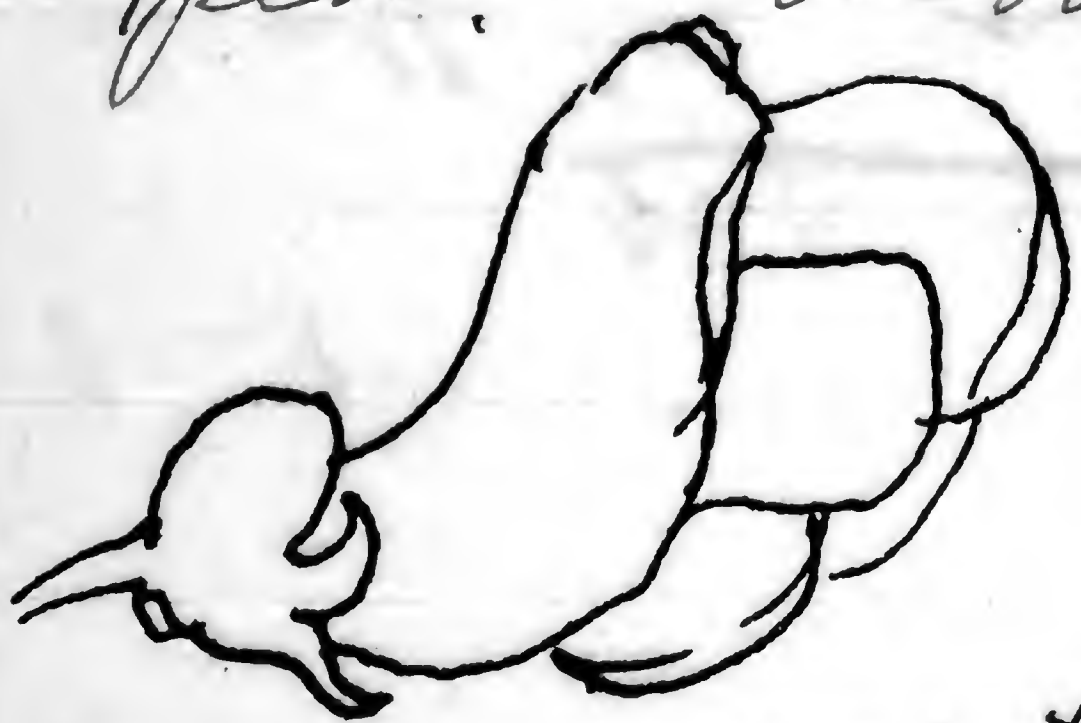
Fruit

No. 270 (= 212?)

Small blue-flowered shrubby  
Desmodium. Along road N. East.  
About 5 segments to a segment.

No. 271.

Large, yellowish, twisted-keel,  
pea. Along road N. East.



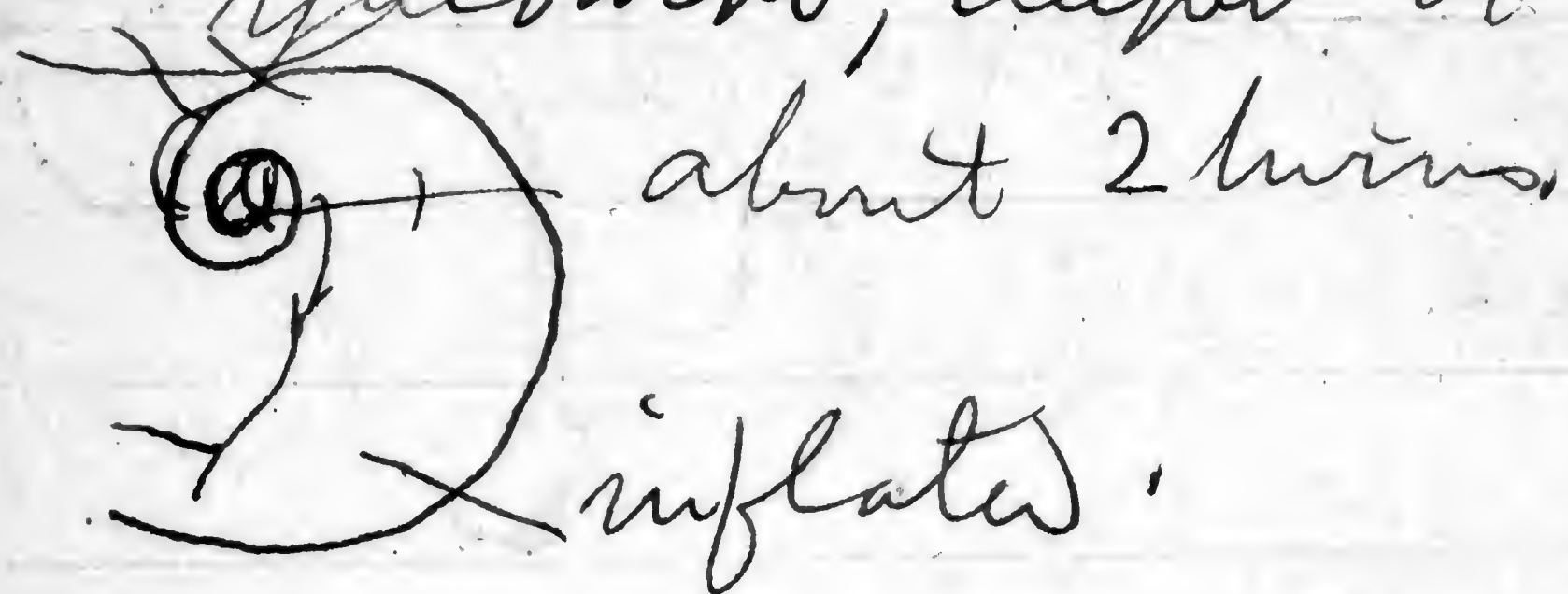
fl. x/ side view

standard yellowish,

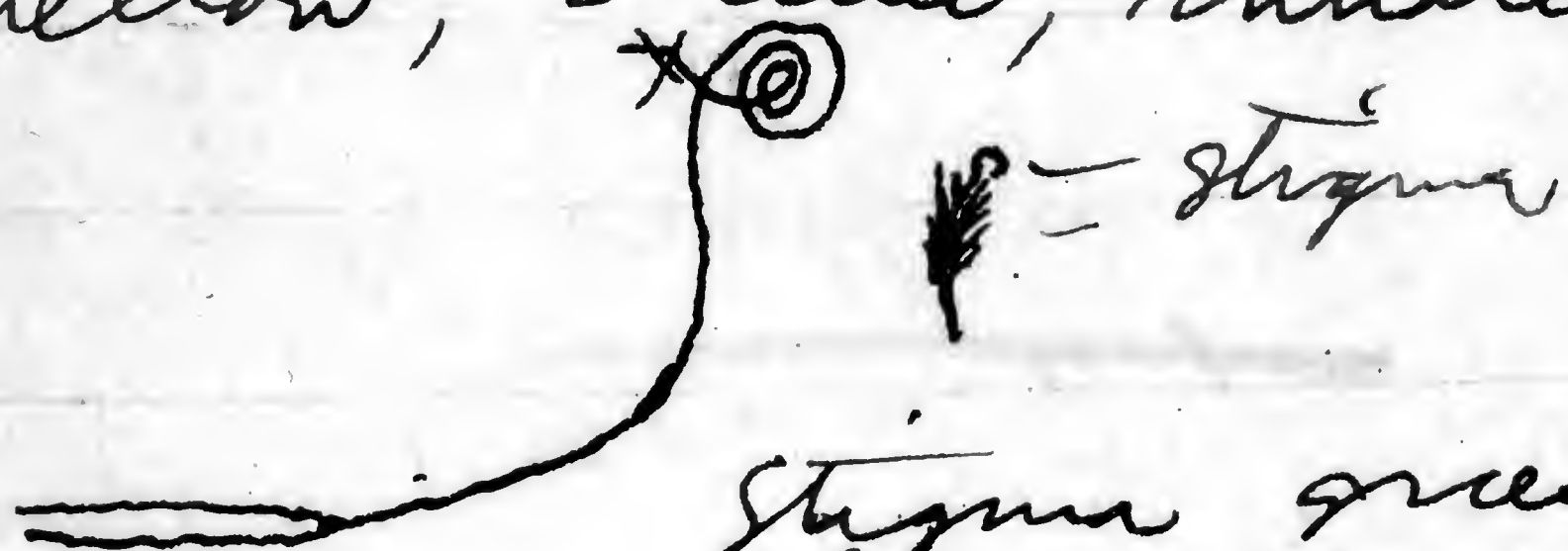
erect, broad, emarginate  
truncate, broad.

Wings loosely twisted, not  
invited, yellowish, purple toward

ends coherent with keel only at base  
Keel twisted, inclining stem & pet.  
yellowish, deeper at apex



Stamens 1+9, filaments white, smooth  
spindly twisted in keel, anthers small,  
yellow, 2-celled, innate, long.



Stigma green, terminal  
with heavy brush below it  
style slender smooth, white  
Pod green, hairy  
Brush of hairs partly retrorse.

Fruit, No. 272.

Fruit 3 winged, dry, no fls. or leaves  
thick rootstock. On bare rock  
in woods N. East.



Fruit, No. 273

"Monkey's Comb." (in Spanish)

A great, long woody vine, extending up into the top of a very tall tree. Fruit rough, winged seeds. No leaves could be reached.

Fruit only.

Fruit

No. 274

Tree with mulberry-like fruit.

Spreading & branching, with rather smooth, dark gray bark.

No fls. found.

Cult. & along road.

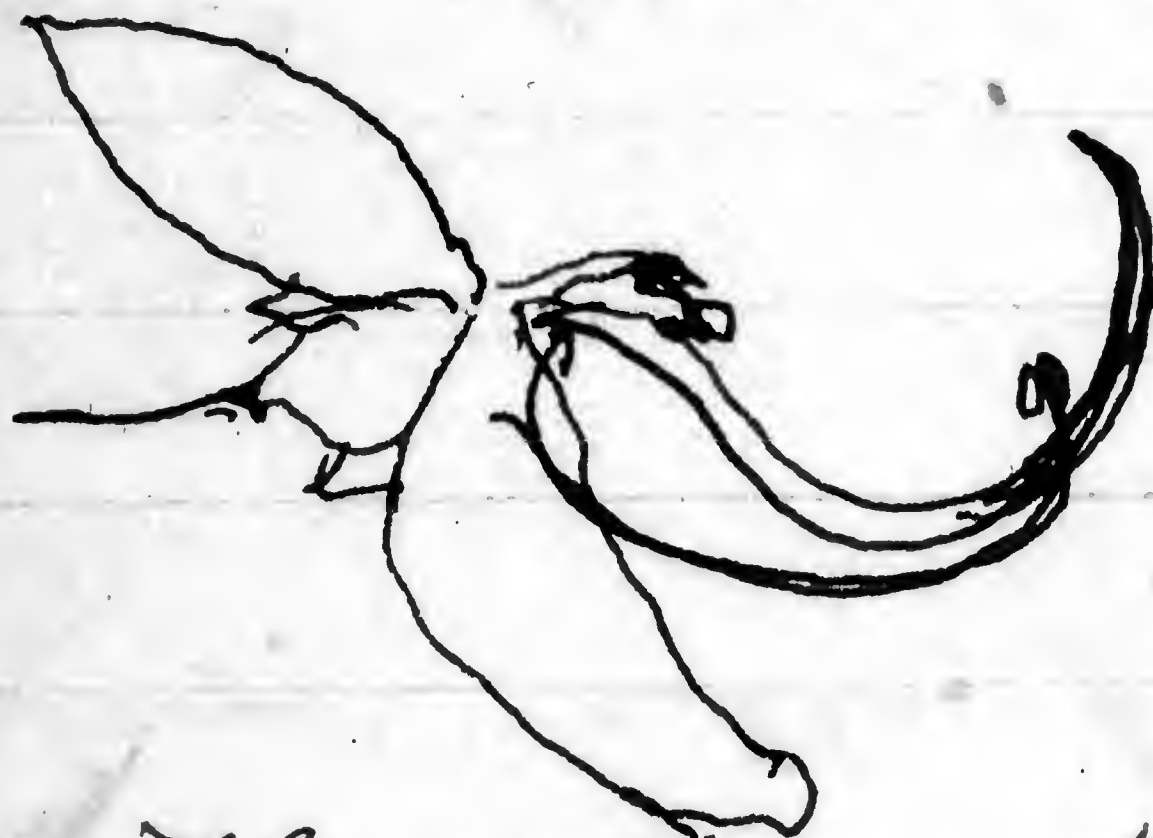
Fed to cows.

1 pod.

No. 275

Cassia fistula

Cassia - tree with gray  
scaly bark. Racemes drooping,  
hence flowers reversed.



ovary  
side view of fl.  
x 1.

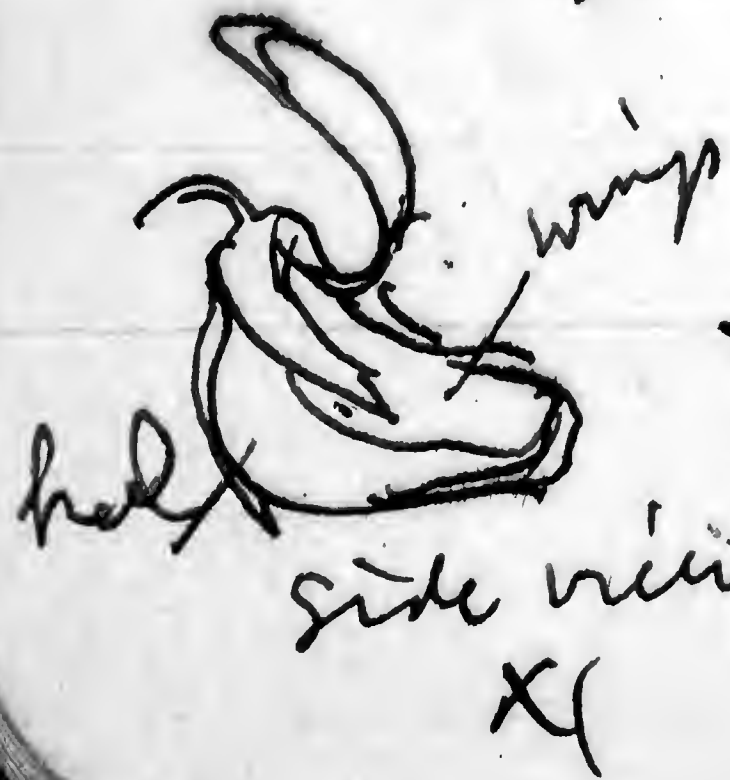
Fl. yellow. petals nearly equal,  
acute. Sepals greenish,  
reflexed, acute.

Stamen 10, ~~unequal~~, the 4  
lowest long, others short.  
Ovary smooth, curved long.

Fruid  
+  
Seed.

No. 276

The larger yellow Rattle-box (Baptisia)



side view  
x1




front view.


a few very light  
purple veins.  
Caly of 5 greenish  
spreading, acute,  
lance sepals.



standard erect, light yellow  
as are the other parts of Corolla  
smooth.

Wings obtuse, rather narrow.

Keel yellowish, coherent, indurated  
stam. & pist.  keel.

 x1 Ovary green, smooth, style  
smooth, greenish, stigma small  
terminal.

Stamens monadelphous.

The 4 lowest stamens are longer &  
have shorter, yellow 2-celled anthers &  
the remaining 5 are shorter & have  
elongated anthers  $\beta$ , imbricate, yellow.

The long ones remain to mature later.

Stamen 9 - monadelphous.

seed. No. 277.

Papaya - Cultivated.

Good sized tree. See  $\frac{1}{2}$  leaf.



erod

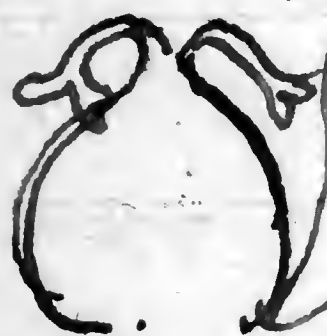
No. 278

The small, native Papaya.

Stam. + pistils on diff. plants. <sup>calyx very small, green, 5 parts.</sup>  
Pistil. fl. larger, white (yellowish) with  
5 twisted, thick obtuse rather narrow  
petals, purplish outside.

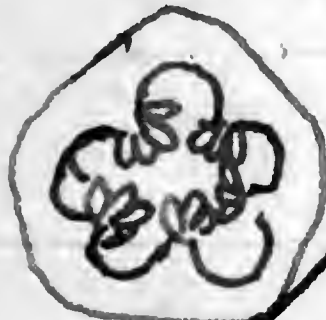
stigmas 5, on short spreading styles, each  
2 lobed exserted. yellowish

ovary green, smooth, superior



ovary 1-celled, 5 paricel

placentae, ovules very many



Stam. fl.

calyx very small

greenish, Corolla

white, monopit, 5-lobed

lobes obtuse

filaments 10, on throat, the alt. ones longer, with

short hairy (filaments), anthers yellow

2 celled in cross, long dehiscent

7-lobed

sweet-scented.  
(like tuberose)

Fruit: No. 279.

The peculiar somewhat shrubby

6' tall Leaves 5 divided

Plant with 3 lobed smooth

fruit. superior, smooth, 3-lobed

ovary 3-celled, each with

one seed.

Along road 5.



Had a purplish (I believe monoph. & 5-lobed) corolla, but this was lost.

Fruit.

No. 280

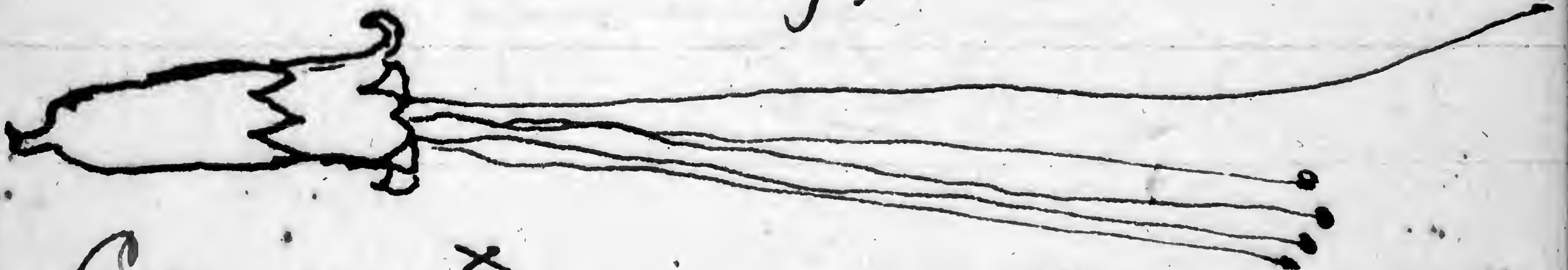
Woody Smilax - climbing  
10° or 12° ft.

On spec. only with poor leaves.

No. 281 Guava

Winged-comp. leaf. Tree of  
medium size, gray smooth  
bark & branching

~~Leaves~~ <sup>calyx tube</sup> monoph. 5-lobed, lobes  
short-hairy, erect, acute, greenish



Corolla <sup>x</sup>monoph., green-white, 5 reflexed



acute lobes. Stamens numerous, coherent  
in a tube = to corolla, free parts of filaments  
long exserted, white, smooth, slender.

Anthers small, yellow, 2-celled.

Tube of stamens coherent with corolla at base.  
Ovary superior smooth, whitish, style  
very long, slender, white, smooth. Stigma  
small, green, capitate.

⑧ Ovary 1-celled, several ovules in parietal  
placenta

Fruit. No. 282.

Small black gourd (soft.)

Cult. & wild. Delicate vine.

Stam. & pist. fls. (yellow) on same plant

Ovary smooth, 3 celled, seeds flat,

many.

No. 283.

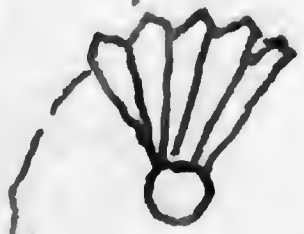
White Pond Lily. 5 green, lance,  
acutish (obtus) sepals, speckled with brown.

Petals about 20, same shape, white.

Stamens 140 or so filament short

flat, anther 2 celled, with connective

stamen X1 projecting above as a white  
point. Introrse, hyaline, small  
yellowish



side view of  
ovary

top of ovary



Ovary flat (concave) with  
 little round button in center.  
 About 20 cells, no style,  
 stigmatic surface on top.  
 Ovules very many.

No. 284

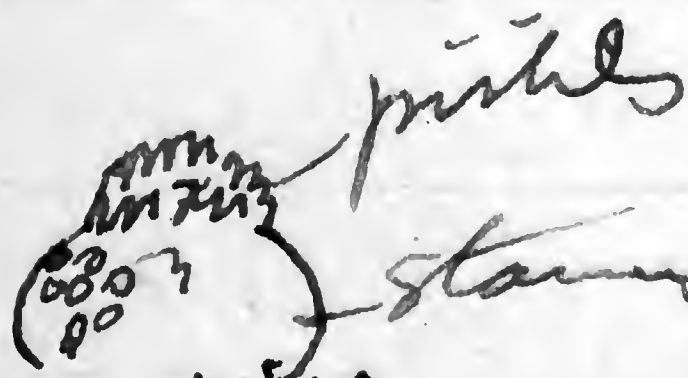
Pontederia - swamp.

Fls. blue (violet) with upper lobe with  
 2 yellow spots. Anthers 6 - 3 long  
 & 3 very short in this one, style medium  
 Fl. hairy outside

No. 285,

Tree with smooth thick leaves, <sup>alt.</sup> smooth, gray  
 bark, in swamp.

Sepals thick (very) yellowish ~~gray~~,  $\Delta$ , with  
 red spot at base inside. Petals  
 smaller, yellow (light) red inside  
 except base which is yellow.



Pistils very many, above  
 stamens small, 1 series  
 stamens <sup>(2?)</sup> series below.

The "stamen" looks like a  
 fleshy stigma & style with

52
62
82
22
12
02




# Slime moulds - Onetepe

1. Small white Physarum.
2. Cornuaria-like
3. Lindbladina (?)
4. Stemonitis (large dark-brown.)
5. Arcyria (like Cinerea)
6. Arcyria (like punicea)
7. Wh. (convolute) Physarum.
8. A sp. on which yellow Plasmodium
9. Little fluffy brown Arcyria (?)
10. Arcyria arspula (?)
11. Scale like yel. Myxom.
- 12 (a myxom.?) On leaves of no. 31
- 13 Stemonitis (like fusca)
- 14 Hemiarcyria (rubiformis?)

still remaining

15 ~~Fuligo on tree east~~  
 16 ~~Stemonitis~~  
 17 ~~Stemonitis~~  
 18 ~~Stemonitis~~  
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 100 ~~Stemonitis~~



245. Black-seeded Grass. <sup>Roundside</sup>  
 246. 5-palm. low over. <sup>Roundside</sup>  
 247. Loose, spreading shrubs  
 248. Achote. <sup>(Fruit)</sup>  
 249. Red-brown pods <sup>Obf.</sup>  
 250. Sapote.  
 251. Grion <sup>(Peanut)</sup>  
 252. Swamp Polygum <sup>Wh.</sup>  
 253. Very tall yell. Comp. <sup>cult.</sup>  
 254. Brown pod - Camia low.  
 255. Yell. Comp. Shrub. <sup>Ciras</sup>  
 256. Vegetable Sponge.  
 257. Delicate Asplenium  
 258. Laurel  
 259. Very large tree; fruit <sup>Plum like</sup>  
 260. 3<sup>rd</sup> Bejuca  
 261. Frijolito  
 262. Fruit with spatulate <sup>append.</sup>  
 263. Vine with   
 264. Eupatorium-like  
 265. Small tree, fls. yell. in spikes.
266. Prostrate Mallow <sup>(Small)</sup>  
 267. Wh. mint; fls. in heads  
 268. { Siberian comb like // Plum. like small tree  
 269. Climbing apocynum  
 270. Shrubby Desmodium <sup>2 1/2'</sup>  
 271. Large, twisted pea  
 272. 3-winged fruit - on stones  
 273. "Monkey's Comb"  
 274. Mulberry-like  
 275. Cassia fistula.  
 276. Larger Rattle-box.  
 277. Papaya - cult.  
 278. " " <sup>native.</sup>  
 279. Odd, coarse, 3 lobed fruit  
 280. Woody Smilax  
 281. Guava (winged comp. leaf.)  
 282. Soft black ground  
 283. Wh. Pond Lily  
 284. Pontederia  
 285. Thick sep. & petals - <sup>swamp.</sup> tree  
 286. Slender weed like  
 242 in gen. appears,



- 205 Very tuberc. milkweed  
 206 <sup>III</sup> <sup>12</sup> ~~Anothera~~ (mt.)  
 207 "Sweet Clover" (mt.)  
 208 "Chirca" - <sup>milly</sup> poison toothache cure  
 209 Coarse Verbena.  
 210 <sup>III</sup> Pea with bright red seed  
 211 <sup>III</sup> Bright blue berry shrub  
 212 <sup>III</sup> ~~Desmodium~~ (wee)  
 213 <sup>III</sup> Fine leaved shrub  
 214 <sup>III</sup> ~~Cheilanthes~~  
 215 <sup>(12)</sup> <sup>brown pods</sup> Pea - rounded leaflets  
 216 <sup>III</sup> Large myosurus (Orchid)  
 217 <sup>III</sup> Small tree, berries salmon  
 218 "Flag-leaved" plant  
 219 <sup>III</sup> Small fl. yell. shrub. mt.  
 220 <sup>III</sup> <sup>"taste"</sup> Guasimo melano  
 221 Long podded "Catalpa"  
 222 <sup>III</sup> Vine, - Cacao like fruit  
 223 <sup>III</sup> " - Date seed fruit  
 224 <sup>III</sup> " - 4 lobed black fruit
- 225 <sup>II</sup> Red-berryed small tree.  
 226 <sup>III</sup> Wh. climbing Eupatorium  
 227 <sup>III</sup> Small tree - 3 lobed fruit  
 228 <sup>III</sup> Wh. fl. vine (looks like 122 a little)  
 229 <sup>III</sup> Passion Apple  
 230 <sup>III</sup> Comp. low vine - brown berries  
 231 - Large tree - sticky fruit  
 232 <sup>III</sup> Small tree, - black 3 seeded fruit  
 233 <sup>III</sup> Polygonum-like shrub.  
 234 - Yellow-mallow - brown center  
 235 <sup>I</sup> Shrub - nettle, smooth stem  
 236 <sup>II</sup> Spiny, - hard-fruited <sup>woody</sup>  
 237 <sup>fertile</sup> <sup>III</sup> <sup>stony</sup> ~~Acrostichum~~  
 238 <sup>III</sup> Mango  
 239 <sup>III</sup> Spiny fruited, yell. fl. shrub.  
 240 <sup>III</sup> Comp. shiny-leaved tree,  
 241 <sup>II</sup> Sedge  
 242 <sup>III</sup> <sup>III</sup> Like brown grass  
 243 <sup>III</sup> Spurge-like weed.  
 244 <sup>II</sup> Red fl. (Mrs. Jones')



- |                                   |   |
|-----------------------------------|---|
| 163 Pink Eupatorium<br>volcan     | 184 Gymnogramme<br>volcan               |
| 164 Blue " "                      | 185 Selaginella - "                     |
| 165 Wh. " "                       | 186 Greenish orchid - "                 |
| 166 Penstemon " "                 | 187 Hairy plant, with small orange fls. |
| 167 Pink Everlasting "            | 188 " " decid. wh. petals, volc.        |
| 168 Narrow. lvs., yell. fl. Pea " | 189 Indian Pink "                       |
| 169 Small Baptisia fruit "        | 190 Cleome - Garden                     |
| 170 "Melbaud"! with pomes!        | 191 Cedar Tree "                        |
| 171 Delicate wh. Polygala "       | 192 Wh. fl. vine Ext.                   |
| 172 Minute, yell. fl. "           | 193 Large Pink Eupatorium               |
| 173 " red " "                     | 194 Nephrodium - fern.                  |
| 174 Very slender red Polygala     | 195 3-lobed-fruited vine.               |
| 175 Pie-plant like "              | 196 - 2-leaved, red-berried herb        |
| 176 Quinine foot of wh.           | 197 Spiny fruited vine (San Carlos)     |
| 177 Aspidium "                    | 198 Paraiso.                            |
| 178 Larger Blechnum (= 181)       | 199 Scaly-stemmed Adiantum              |
| 179 Narrow, long, Pteris "        | 200 Coffee                              |
| 180 Δ Pteris "                    | 201 Cacao                               |
| 181 Small Blechnum (= 178)        | 202 Tree cotton                         |
| 182 Δ Polypodium "                | 203 Granarisa                           |
| 183 Little Δ Asplenium.           | 204 Granarisa<br>(spiny fruited Annona) |



# This book

- |   |  |
|---|--|
| <p>123 Small tree <sup>HHH</sup> palm-like</p> <p>124 Shrub - "Tea" <sup>HHH</sup></p> <p>125 Cordate leaved yell. Mallow <sup>HHH</sup></p> <p>126 "Choke-cherry" <sup>HHH</sup></p> <p>127 Very minute yell. pea <sup>HHH</sup></p> <p>128 Large wh. Solanum. <sup>HHH</sup></p> <p>129 Pink Mallow. <sup>HHH</sup></p> <p>130 Compos. with Samara-like <sup>HHH</sup> <sup>scale</sup></p> <p>131 Cherry-like shrub (Jack) <sup>HHH</sup></p> <p>132 Phryma-like; reflexed <sup>HHH</sup></p> <p>133 Wh. hairy morning gl. <sup>HHH</sup></p> <p>134 Shrub with purple fls. <sup>HHH</sup> <sup>small. Swamp</sup></p> <p>135 Yell. pea - pithy base. <sup>HHH</sup> <sup>swamp</sup></p> <p>136 Wh. Eupatorium - <sup>HHH</sup> <sup>connate</sup> <sup>perfol.</sup></p> <p>137 Fine weed. <sup>HHH</sup></p> <p>138 Oculta <sup>HHH</sup></p> <p>139 Red &amp; yell. Milkweed <sup>HHH</sup></p> <p>140 Tree, cherry-like <sup>HHH</sup></p> <p>141 Wood, 3 lob. - <sup>HHH</sup> <sup>swamp</sup> bar-like</p> <p>142 Prickly pink Mallow <sup>HHH</sup></p> | <p>143 Water Cabbage <sup>HHH</sup></p> <p>144 Coarse mint, 1 lobe. <sup>HHH</sup></p> <p>145 Galium-like, swamp. <sup>HHH</sup></p> <p>146. Rev-hot Poker. <sup>HHH</sup></p> <p>147 Wh. waxy-fl. vine - Lake shore <sup>HHH</sup></p> <p>148 Polytrichum (like San Carlos) <sup>HHH</sup> <sup>Lake shore</sup></p> <p>149 Greenish fls. - woody vine. <sup>HHH</sup></p> <p>150 Comp. like small ficus. <sup>HHH</sup> <sup>heads</sup></p> <p>151 White Orchid <sup>HHH</sup></p> <p>152 Pink fl. shrub - Volcano. <sup>HHH</sup></p> <p>153 Orange Orchid <sup>HHH</sup></p> <p>154 Small, 4 petals, pink <sup>HHH</sup> <sup>base</sup></p> <p>155 Phlox-like <sup>HHH</sup></p> <p>156 Cud-weed <sup>HHH</sup></p> <p>157 Bear-berry <sup>HHH</sup></p> <p>158 Small, yell. comp. <sup>HHH</sup></p> <p>159 Bright-blue berry <sup>HHH</sup></p> <p>160 Hairy-pod Pea <sup>HHH</sup></p> <p>161 Galium-like (C.) <sup>HHH</sup></p> <p>162 Small Comp. (little fireweed) <sup>HHH</sup></p> |
|---|--|



- 81 Large yell. Morn. glory  
Fls. IIII
- 82 Very long " "  
Large IIII
- 83 Shrubby Pink Oklahoma  
IIII
- 84 Spring tree like 83.  
IIII
- 85 Oklahoma  
IIII
- 86 Menthylia  
Fls. IIII
- 87 Tuberculate milkweed  
IIII
- 88 Fluted " "  
Fr. II
- 89 Bixa  
Fr. IIII Fl. IIII
- 90 Bass-wood - Castor bean  
IIII
- 91 Vine 2 curved pods.  
IIII
- 92 Spring Composite  
II
- 93 Red fruited, palm-leaves.  
from Mt. IIII
- 94 Rat-tail "  
II
- 95 Jacaro  
IIII
- 96 Leche del diablo  
IIII
- 97 Inflated pod, Green "Cassia"  
IIII
- 98 Myosurus.  
IIII
- 99 Mint (= Verbena)  
II
- 100 Anona (Canton)  
II
- 101 a bar of 29

- 102 Lobelia like Comp.  
II (= 44?)
- 103 Small fl. Cassia  
IIII
- 104 Soft gourd (cult)  
II
- 105 Gourd-tree  
II
- 106 Anona (Steiner)  
I
- 107 Sweet lime  
Fls. IIII
- 108 Yellow orchid.  
mt. 3/1
- 109 Delicate pea-vine  
IIII
- 110 Flow. Glm.  
IIII IIII IIII
- 111 Straw Composite  
IIII IIII
- 112 Minute weed.  
IIII
- 113 Solanum (Steiner)  
IIII
- 114 Yell. Mallows, syn.  
IIII
- 115 Little Ground Cherry  
IIII IIII
- 116 Phryma like?  
IIII
- 117 Wh. Straw fl. in heads  
IIII
- 118 Disc-bearing plant.  
IIII
- 119 = 54 (?) 6 lobed wh.  
IIII
- 120 Sticky calyx. - wh.  
IIII
- 121 Flat-stem Grape  
IIII
- 122 Rumex like Vine  
IIII



41. ~~Agave~~ ~~Agave~~ ~~Agave~~ ~~Agave~~ ~~Agave~~  
 42. Cassia lewipes ~~Agave~~  
 43. Ficus like (Stems) ~~Agave~~  
 44. Cassia "chamissoi" ~~Agave~~  
 45. Pea - 2 seeded brown pods ~~Agave~~  
 46. Shrub, bright red fl. ~~Agave~~  
 47. Composite ~~Agave~~  
 48. Hoary pea ~~Agave~~  
 49. Groundsman like vine ~~Agave~~  
 50. Oxalis like, yellow. ~~Agave~~  
 51. Agave ~~Agave~~  
 52. Yell. Comp. (= 1/3) ~~Agave~~  
 53. Chirpa like Comp. ~~Agave~~  
 54. Small hairy wh. fl. weed. ~~Agave~~  
 55. 5 leaf. Morn. Glory ~~Agave~~  
 56. Pea with narrow leaf ~~Agave~~  
 57. Large purple Morn. Gl. ~~Agave~~  
 58. Cornelina ~~Agave~~  
 59. Madera ~~Agave~~  
 60. Astragalus (?) ~~Agave~~

61. Minute yell. morn. Glory ~~Agave~~  
 62. Chilmeate (like no. 6. ~~Agave~~  
 63. Inflated pink + wh. corolla ~~Agave~~  
 64. Oblique wh. pea All. Pt. ~~Agave~~  
 65. Big Aquatic Cassia ~~Agave~~  
 Little Blue ~~Agave~~  
 66. Coarse mint. ~~Agave~~  
 67. Prostrate 4-leaf. Cassia ~~Agave~~  
 68. Coarse mint. ~~Agave~~  
 69. Indigo plant. ~~Agave~~  
 70. "Poison prickly" - shiny weed. ~~Agave~~  
 71. Ochra. ~~Agave~~  
 72. Garlic Bignonia ~~Agave~~  
 73. Red & black berry. ~~Agave~~  
 74. Yellow Mallow. ~~Agave~~  
 75. Hairy Cassia ~~Agave~~  
 76. "African" ~~Agave~~  
 77. Delicate Adiantum ~~Agave~~  
 78. Large " ~~Agave~~  
 79. Wh. Gymnogramma ~~Agave~~  
 80. Green " ~~Agave~~



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- 3- Moropology - ~~yellow~~ <sup>Casimiro</sup>
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- 6- Vine with small wh. fls.
- 7- Yellow Bignonia
- 8- Alder-like
- 9- Cornusuelo.
- 10- Small yell. Composite
- 11- Red Samara
- 12- <sup>Roots -</sup> Brunella-like
- 13- <sup>= 522</sup> Coarver yell. Compos.
- 14- Wh. milkweed.
- 15- Large Pea.
- 16- Pea with <sup>very</sup> hairy pod.
- 17- Climb. milkweed - smooth.
- 18- Pea with smooth brown pod.
- 19- Pea with <sup>very</sup> large pod.
- 20- Tubular, red.
21. ~~XIII/11~~ Brothura-like. <sup>yell.</sup>
22. Red Abutilon
23. Little purple Monr. Gloy
24. Green, unopened.
- 25- Wh. Eupatorium
- 26- Blue Pea. (common)
- 27- Monkey flower
- 28- Purp. Eupatorium
- 29- "Screw-propeller"  
<sup>fls. III</sup>
- 30- Tree at cemetery
- 31- Leafless tree
- 32- Wh. fl. in axil. clusters
- 33- Very light yellow, ciliate
- 34- Hombre grande
- 35- Smooth Cassia
- 36- Wh. comp. shrub
- 37- Minute Pea
- 38- Wh. mallow
- 39- Silky, cordate, vine
- 40- Stellate pods.

Riv & Yell. milkweed  
Large wh. Solanum.

Fireweed (large) (12)

Bright-red fl. shrub (sterile)

Pink fl. Eupatorium (mountain) 2)

Brunella - fruit.



Zoological Notes.  
Nicaraguan Expedition.  
1892.

Yell. shrub mallow

Blue mint.

Chelidonium

Elder-berry like (one of last)

Scaly adiantum

Arbuta like Comp

Large yell. Morning gl.

Spiny-fruited (San Carlos)

Grass-like

Morning wh. Eupatorium

"Large Rose"

3 lobed seed (Vine)

Very large-fl. Verbena (?)

Pale Convolvulus ?

Small wh. fl. Mistle (or heads)

White composite (small round heads) ?

Ficus-like (stem)



